EIZO

Service Manual
FlexScan® F56
(MA-1785)
Ver. 10

IMPORTANT

- The repair or service work on the monitors should only be performed by a service personnel.
- Read and completely understand this Manual before attempting service.
- Observe safety cautions for your safe work.

EIZO CORPORATION

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2. Precautions for Servicing CRT

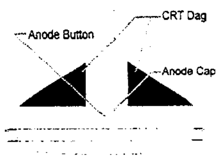
⚠WARNING

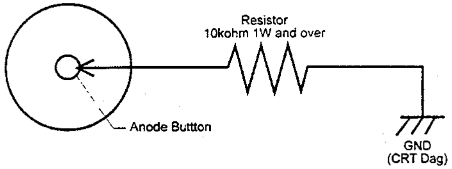
1) **Disconnect the Power Cord, and completely remove static charge before taking off the Anode Cap.**

   When discharging high voltage, be sure to disconnect power cord.

   Connect a 10kΩ resistor (1W and over) and a insulator wire(such as a test probe) between CRT dag and the Anode Button.

   If the High Voltage is not removed, you will get electric shock by touching the Anode Cap area.





2) **Replace with a CRT of the same type number for continued safety.**

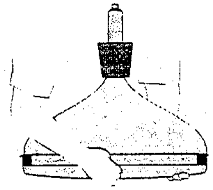
   The CRT used in this monitor employs integral implosion protection.

   If the CRT is replaced with a different type, it will result in improper circuit function, exceed the specified Safety Standards range, or affect the picture quality guaranteed in the specifications.

⚠CAUTION

Do not lift the CRT by the neck.

The neck of the CRT is not firm enough to hold the CRT by the whole. Hold the CRT under your arms when lifting it. In case the CRT is dropped, it could result in injury.



3. Caution on Degauss Coil

⚠WARNING

Take care not to scratch the coating of the Degauss Coil.

Degauss Coil circuit is on the primary voltage line. It can result in a hazardous fire or electric shock. Follow the instructions below.

1) The Degauss Coil has a current of 5~10A. When the coating of the Degauss Coil is damaged and the Coil directly touches the chassis or a screw, the chassis voltage will become the same as the primary voltage line. This can result in hazardous danger as follows.

   (1) Electric Shock
   (2) Short (Current Leakage)
   (3) Degauss does not work
   (4) Circuit Damage
   (5) Damage of connected computers or peripherals

2) After the work is done, make certain that there are no damage on the coating of the Degauss Coil.

   (1) The Degauss Coil is set in the specified place.
   (2) The Degauss Coil does not touch the shields, screws, or other conductive sharp edges.
   (3) The Degauss Coil is not pushed or pressed.

3) To prevent these hazards, carry out "Safety Test" on the beginning of this manual.

   (1) Earth Continuity Test
   (2) Withstanding Voltage Test

4. +B Voltage, High Voltage Circuit

⚠ WARNING

1) **Do not touch the +B Voltage and High Voltage terminals inside the monitor.**

If carelessly contacted, it can cause serious shock or result in damage of the monitor.

2) **Check the +B Voltage VR, High Voltage VR and X-ray protection VR. The VRs must be adjusted within the specifications range and securely locked with silicon rubber.**

The +B Voltage VR, High Voltage VR and X-ray protection VR normally do not have to be adjusted. They are locked with silicon rubber in order to avoid unnecessary adjustments. Only when the PCB is replaced, the VRs should be adjusted and then sealed with silicon rubber.
If the voltage is out of the specifications range, the X-ray radiation may increase or may cause damage to the monitor. Maintain GND connections between chassis and CRT dag.

3) **Do not operate the monitor with High Voltage level exceeding the specified range below.**

Failures in the High Voltage Adjustment can increase X-ray radiation. The maximum High Voltage range specified for operating the monitor is as below.
Specified Power Supply : 100~120V, 220~240V, Beam Current : zero

MA-1785 : 27.0kV ± 0.3kV

To check for the presence of High Voltage, use an accurate high impedance High Voltage Meter connected between the Anode Button and the CRT dag.
It could cause a rise in high voltage when the Power Supply Voltage is out of the specifications range.

●Before Returning to The Owner :

To protect your customers, perform the safety checks before returning the monitor.

A. Observance

⚠ WARNING

1) **Testing equipment should be isolated by putting an insulating board in between.**

When the cabinet of the monitor is removed and the monitor is operating, there is a risk of electric shock hazard.

2) **Keep people away during the test.**

When the cabinet of the monitor is removed and the monitor is operating, there is a risk of electric shock hazard.

3) **Do not wear any metal or accessories.**

There is a risk of electric shock hazard when the circuit is shorted.

B. Test Procedure

⚠ DANGER

When any portion of the chassis is short-circuit caused by a leakage of primary voltage line, the conductive area may become high voltage which can result in electric shock or other hazardous danger.

1) **Earth Continuity Test**
Impress **AC 25A** between a conductive chassis and the earth terminal of the AC Power Cord for 1~2 seconds. The resistance should be **less than 0.1Ω**.

2) **Withstanding Voltage Check**
Impress AC voltage between a conductive chassis and the line of the AC cord for 1~2 seconds when the Main Power Switch is ON. The buzzor of the testing equipment should not be NG (Electric current sensitivity : 20mA).

220~240V : 1500VAC **100~120V : 1200VAC**

C. Safety Checks

1) **Check and see that all the connectors are tightly inserted.**
2) **Check and see that all harness wires have been clamped as specified.**
3) **Check and see that all lead wires are not caught between the chassis and other metal parts in the monitor.**

SECTION I :SPECIFICATIONS

1. GENERAL DESCRIPTION of the F56

* Sleek, Attractive Design based on our new concept

Based on our new concept, the F56 has many new features such as the cabinet design, the user controls, and technology for advanced use. The F56 has also been produced with less harmful substances and compensates that are easier to recycle. It is now under application to comply with Swedish TCO '95 guidelines.

The unique and ingenious QuickSet™ control pad on the front panel brings easy operation of all monitor controls in the ScreenManager with one finger.
Through a serial cable and a special utility software (option), involves the RS232C Maintenance port on the back of the monitor, various monitor adjustments can be made with the EIZO ScreenManager™ Pro software from the computer.

* 45 cm (17 inch) class Flat Square type CRT

45 cm (17 inch) class, 90° Deflection 0.26 mm dot pitch, high resolution, high contrast, Flat Square Shadow mask type CRT with high performance DY, Dynamic Focus and Dynamic Beam Spot Control (D.B.S.C.) circuitry ensure clear, crisp graphics and text for professional applications.

* Extended FlexScan for Wide Compatibility

- **Horizontal scanning frequency 27 kHz - 86 kHz (Automatic)**
- **Vertical scanning frequency 50 Hz - 160 Hz (Automatic)**
- **Analogue video input**
- **WideView full scanning function**

The F56 memorizes picture adjustment information with its built-in microprocessor. When the system is powered on, the microprocessor recognizes the signal input and the screen is displayed according to the users settings. F56 is capable of displaying 1280 x 1024 mode at a high refresh rate of 80 Hz.

* Various Advanced Functions for Precise Image

- **Auto-Sizing function:** The upgraded Auto-Sizing function lets the microprocessor calculate and automatically adjust the screen size and position for the selected display screen. This function helps the users to adjust the screen image to the multiple video timings in the industry today. This adjustment is available at the touch of a button on the front panel.

- **Advanced ScreenManager™:** New updated windows formatted design of the ScreenManager™ uses a color menu screen making it more attractive. Also adjustment of the position and contrast of the menu itself can be clear the ScreenManager. The use of graphic and animated icons for ease of understanding make the ScreenManager software very user friendly.
The F56 now adds Swedish to the ScreenManager - six (6) languages in total for the user's convenience.

* Superior Functions for user convenience

◆ Input Priority function

This is a new feature for EIZO monitors which can be utilized when dual inputs are used. The F56 has the capability for the user to give priority to one signal over the other either the D-Sub or BNC video input. If using dual connections and both video signals are detected by the monitor, the signal input that has been assigned priority is displayed, without switching the signal input manually on the front panel.

◆ DDC compatibility

The EIZO F56 complies with VESA DDC1/2B standards with built-in DDC circuitry. By connecting the bundled D-Sub cable, the F56 can be used flexibly without any technical knowledge for user's who use the Windows 95 environment.

* Ergonomic Design for User Comfort and Environmental Regard

◆ TCO '95 Compliance

TCO (The Swedish Confederation of Professional Employees) is newly advocating TCO '95 as the evolved standard which has embodied standards from various fields. It is based on the TCO1992 and aims to meet with the requirements concerned with Ergonomic, Energy efficiency, Electric emission and Environmental concerns such as ISO 9241-3, Swedish MPR-II and Recyclability.

The F56 conforms to the TCO '95 guidelines by applying the following points.

- Meets the guidelines of emission by implementing the new Anti-Reflective (AR) coated CRT (Super ErgoCoat™) with EIZO original technology. The F56 attenuates AEF, AMF emissions to their lowest levels, and offers advanced power saving functionality and electrical safety.
  As well as the emission guideline, the F56 complies with the guidelines for radiation of Low Frequency Electric Fields, Magnetic Fields and Static Electricity.

- Complies with the guidelines for visual ergonomic requirements. The F56 ensures crisp, clear characters and images and user comfort.

- Concerns for the protection of the environment, the F56 uses many more materials and components that have been produced with concern for ecology such as the cabinet, internal electric components, and documentation.

◆ CE Mark

This standard newly adds further regulations for harmonic current emissions, voltage fluctuations and flicker within the office environment. The F56 meets all of today's and future European standards.

◆ PowerManager™ --- EIZO Unique Power Saving System

The EIZO PowerManager™ function automatically reduces unnecessary power consumption when the display is not in active use. The PowerManager works with NUTEK and also with VESA DPMS compatible systems.

1. PowerManager complying with NUTEK
With the PowerManager set to NUTEK, the F56 works with the blank screen of screensaver software to switch into the EIZO PowerManager modes.
PowerManager Mode 1 is implemented for a user definable period of 0-60 minutes. This results in an instant reduction in power consumption down to less than 10 W.
If the keyboard or mouse are not accessed during Mode 1, the display then enters into PowerManager Mode 2 which results in a further reduction in power consumption to less than 5 W.

2. PowerManager complying with VESA DPMS
With the PowerManager enabled to this setting, the F56 enters into the Mode 1 after the delay time setting when it receives the Suspend state signal (No video and V. Sync lost). The F56 enters into the Mode 2 when it receives the Off state signal (No video, H/V. Sync lost). The delay time, which can be defined by either 5 seconds or 3 minutes, is applied when the monitor enters into the power saving mode.

When the PowerManager is set to VESA DPMS, the video signal is not detected by the monitor. In this setting, the F56 does not enter into the EIZO PowerManager mode as long as either the horizontal or the vertical sync signal is detected by the monitor.

* Optional Items for Further Expandability

- Stable Base
  A base that fixes the monitor in place when the standard tilt and swivel stand are removed can be provided for environments.

- Electrical non-interference shield
  0 cm non-interference technology for corporate users which put several EIZO monitors side by side in the office.

- i•Sound™ Speaker Unit
  Attachable original speaker unit is offered for all EIZO new models for multimedia use, specially for news or conferencing.

Apple is a registered trademark and Macintosh is a trademark of Apple Computer Inc.
DPMS is a trademark and VESA is a registered trademark of Video Electronics Standards Association.
VGA is registered trademark of International Business Machines Corporation.
Windows and Windows95 are registered trademarks of Microsoft Corporation.
ScreenManager, PowerManager, SuperErgoCoat, QuickSet and i•Sound are trademarks of EIZO CORPORATION.
EIZO and FlexScan are registered trademarks of EIZO CORPORATION.

2. ELECTRICAL SPECIFICATIONS

All measurements are subject to prior warm up for at least 20 minutes and should be carried out in a standard inspection environment. The display mode herein described stands for VGA at the factory preset, unless otherwise specified.

2.1 DEFLECTION

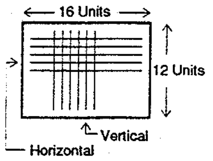
2.1.1 Scanning Frequency

Horizontal: 27 ~ 86 kHz (Auto Switching)
Vertical: 50 ~ 160 Hz (Auto Switching)

2.1.2 Retrace Time

Horizontal: 2.9 µs max.
Vertical: 0.45 ms max.

2.1.3 Linearity



The linearity is specified as following figure on limited horizontal frequency ranges; 30~33 kHz, 35~42 kHz, 45~50 kHz, 55~62 kHz, 64~69 kHz, 73~82 kHz and 83~85 kHz.

Horizontal: ± 5.5 % max.
Vertical: ± 5.5 % max.

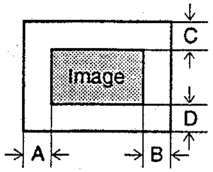
As obtained through following formula against individual measured unit values from the specific cross-hatched pattern.
H = {(X max. or X min.) - (X ave.)} / (X ave.) x 100
V = {(Y max. or Y min.) - (Y ave.)} / (Y ave.) x 100

2.1.4 Display Area Size

(a) Preset Standard mode
Horizontal: 312 ± 8 mm
Vertical: 234 ± 8 mm

(b) User Preset mode
Display size can be preset by user through microprocessor control panel.

2.1.6 Picture Centering



| A - B | ≤ 8 mm
| C - D | ≤ 8 mm

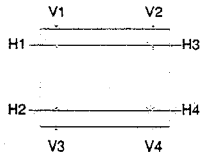
2.1.7 Raster Size Regulation

Horizontal: 2 mm max.
Vertical: 2 mm max.
As defined by overall raster size growth on the flat white field in line with brightness change from min. to max.

2.1.7 Distortion

As individually defined as follows on flat white raster field.

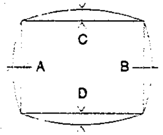
(a) Trapezoidal, Parallelogrammic & Tilt



All 3 factors are defined by the actual distances of the standard white raster field corners from the nearest bezel escutcheon against all directions.

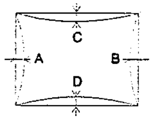
| V1 - V2 | ≤ 2.5 mm | V3 - V4 | ≤ 3.0 mm
| H1 - H2 | ≤ 3.0 mm | H3 - H4 | ≤ 3.0 mm

(b) Barrel



Left, Right: A, B = 2.0 mm max.
Top, Bottom: C, D = 1.5 mm max.

(c) Pin



Left, Right: A, B = 2.5 mm max.
Top, Bottom: C, D = 2.5 mm max.

2.2 VIDEO

2.2.1 Recommended Resolution 1280 dots x 1024 lines

2.2.2 Video Band Width

170 MHz Dot Frequency capability

2.2.3 Rise/Fall Time

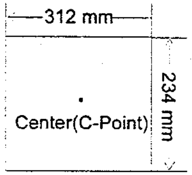
Rise Time: 5 ns typical
Fall Time: 5 ns typical

2.3 ITC PERFORMANCE

2.3.1 Color Purity

Color purity is properly adjusted to the destination at the factory with following condition.
Conspicuous different colors shall not be recognizable within display area against all directions after the external degaussing.
Display Image: Red, Green & Blue flat fields.

2.3.2 Convergence



Standard Display Size

Standard crosshatch pattern to be brought on display.
Max. deviation among RGB raster line centre distances, either horizontal or vertical, shall not exceed the following:

Center (C-Point): 0.25 mm
Entire Screen Area: 0.45 mm

2.3.3 White Balance

To be varied from 4000 K to 10000 K incremented by the 500 K and factory default setting 9300 K. All of the color temperature is a reference value and industrial standard 5000 K, 6500 K and 9300 K will be prescribed as following x-y coordinates. 4000 K, 6500 K and 10000 K are adjustment values and all other temperatures shall be calculated by the microprocessor.

(5000 K)	x: 0.346	y: 0.359
(6500 K)	x: 0.313	y: 0.329
(9300 K)	x: 0.283	y: 0.297

Tolerance: ± 0.025

To be validated through high-intensity white window (40 mm x 40 mm) in the centre of the CRT under 1280 x 1024 mode. Brightness is set to 52 ft-L (178 cd/m^2) at 6500 K and 9300 K. 45 ft-L(154 cd/m^2) at 5000 K.

2.3.4 Jitter

To be less than 0.1 mm in amplitude, horizontally and vertically, or invisible from the distance of 50 cm from CRT surface.

2.3.5 Focus

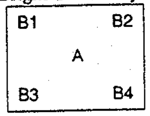
To be validated by "all #'s" display mode under 1280 x 1024 resolution.
160 x 64 #'s (Font of 7 x 9, dot matrix of 8 x 16) to be brought and BRIGHT control turned to erase back-raster. All # characters to be clearly recognized in both normal and reverse mode.

2.3.6 Max. Brightness and Bright Uniformity (at factory default 9300 K)

(a) White field pattern	25 ft-L (86 cd/m^2) min.
(b) White window pattern	45 ft-L (178 cd/m^2) min

Input signal 0.7 Vp-p, Brightness & Contrast maximum.
1280 x 1024 mode, 40 mm x 40 mm

(c) Bright Uniformity



Bi + A × 100 ≥ 60 %   i: 1~4
To be measured with a white field pattern.
Brightness and Contrast control are set to 25 ft-L (86 cd/m^2) at the centre of screen 1280 x 1024 mode.
CRT is faced to East.
Measured after the external degaussing.

2.4 POWER SUPPLY

Refer to attached list.
The rated amperage and wattage are obtained when the white field is displayed at the factory preset signal 1280 x 1024 / 80 Hz.

(a) Input voltage and current

220-240 VAC ± 10 % 50/60 Hz: 0.6 A
100-120 VAC ± 10 % 50/60 Hz: 1.4 A

(b) In-rush current

50 A peak maximum. (at cold start)
(with H/V size, contrast and brightness set maximum.)

(c) Power consumption

Normal operation: 100 W
PowerManager Mode 1: Less than 10 W
PowerManager Mode 2: Less than 5 W
(with H/V size, contrast and brightness set as factory default, AC 230 VAC.)
Max.: 118 W   (Optional speaker attached: 123 W)

2.5 SIGNAL INPUT

Signals either through D-SUB mini 15-pin connector or BNC connectors can be selected by the front switch.

2.5.1 Sync Input Signal Form

(a) H/V Separate, TTL, Positive/Negative
(b) H/V Composite, TTL, Positive/Negative
(c) H/V Composite, Sync on Green, 0.3 Vp-p Negative (conform to RS343)
Sync signals are automatically recognized and internally adjusted in the order of priority (a) through (c).

2.5.2 Video Input Signal Form

(a) RGB Separate, Analogue, Positive (0.7 Vp-p/75 Ω)
(b) RGB Separate, Analogue, plus Composite-Sync on Green (conform to RS343)

2.5.3 Display Colors

Unlimited Colors

2.6 CRT

2.6.1 Type

M41KSX683X91 (WTDS Code)
Flat Square Shadow mask Type
90° Deflection
Self-Convergence
EA Gun
Landscape Mount

2.6.2 Dot Pitch

0.26 mm

2.6.3 Phosphor Chromaticity Coordinate

Red	x: 0.625	y: 0.340
Green	x: 0.275	y: 0.605
Blue	x: 0.150	y: 0.065

Tolerance ± 0.02

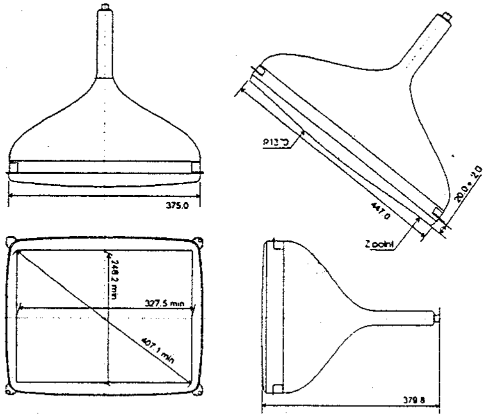
2.6.4 Face Treatment

High Contrast, Anti-Reflective, Anti-Static Coating

2.6.5 Others

(a) Light Transmission:	42.0 % approx.
(b) Phosphor:	P22 (Medium Short)
(c) X-Ray:	Intrinsically protected CRT

2.6.6 Dimension



2.6.7 CRT Qualification

* Subject CRT

M41KSX683X91 Flat Square Shadow Mask Type CRT used on the F56.

* Guideline

1 When the display is powered, the CRT shall be observed with 17cd/m², CIE x=0.281, y=-0.311 (or x=0.313, y:0.329) brightness in the white field pattern. The ambient light shall be under 1 lux/m² on the CRT surface.

2. When the display is not powered, the CRT shall be observed under 700-1000lux white light on the surface.

3. The observation shall be done at distance of 60cm from the CRT face and White, Red, Green and Blue single flat fields are the subject.

4. Zone A is inside the rectangle, 315mm wide x 235mm high, concentric to the centre of the screen and Zone B is outside Zone A.

* Limits

(1) M.P.D.(Missing Phosphor Dots)

Kinds of defects		Max. allowable quantity (pcs)		Min. allowable distance (mm)
		Zone A	Zone B	Zone A
A	Single Filled Mask Hole	1	2	20
B	3 or more adjacent M.P.D. (same colour)	0	0	
C	2 adjacent M.P.D.(same colour)	0	1	
	2 adjacent M.P.D. (different colour)	1	2	
D	Single M.P.D.	3	5	
E	A+C	2	4	
F	A-C+D	5	7	

(2) Scratches

Width (mm)	Max. length (mm)	Max allowable quantity (pcs)
0.21~	Not allowed	0
0.13~0.20	30	1
0.06~0.12	50	1
~0.05	No Limits	-----

(3) Bubbles and Blemish

	Bubble Dia. (mm)	Opaque Dia. (mm)	Max. allowable quantity (pcs)			Min.allowable distance (mm)
			Zone A	Zone B	Total	
Defect in ϕ 50mm circle	~0.25	~ 0.20	No limits	No limits	-----	-----
	0.25~0.50	0.20~0.60	6	6	-----	12.7
Major defect	0.51~0.70	0.41~0.60	2	3	4	57
	0.71~	0.61~	0	0	0	-----

Note : Dia. is an equivalence of the smaller one (a+b)/2, where "a" is length and "b" is width of bubble and opaque.

2.7 MICROPROCESSOR

2.7.1 ON Screen Display Control item

* Screen	Brightness
	Contrast
	Horizontal Size
	Vertical Size
	Horizontal Position
	Vertical Position
	Side Pincushion Distortion
	Side Pincushion Balance
	Trapezoidal Distortion
	Parallelogram Distortion
	Tilt
	Horizontal Convergence
	Vertical Convergence
	Horizontal Moiré Reduction
	Vertical Moiré Reduction
* Color	Standard Color Mode 4000 K ~ 10000 K (incremented by 500 K with 9300 K)
	Custom Color Mode
	* Red Gain
	* Green Gain
	* Blue Gain
	* Red Cut Off
	* Green Cut Off
	* Blue Cut Off
	* Save
* PowerManager	PowerManager Setting VESA DPMS/NUTEK/OFF
	Delay Time 5 sec/3 min
	Mode 1 duration time 0 ~ 60 min (5 min increment)
* Others	Degauss
	Signal Input Priority D-Sub/BNC/Manual
	Beep selection ON/OFF
	Menu Position
	Menu Contrast
	Reset to Factory Default Function
* Information	Information Menu 1/4 ~ 4/4 (4 pages)
* Language	English
	German
	French
	Spanish
	Italian
	Swedish

2.7.2 Preset Signal

Up to 30 different signals can be stored in the microprocessor of the monitor. The following 4 signals are preset at the factory.

VGA 720 x 400 mode
VESA 1280 x 1024 (75 Hz) mode
APPLE Macintosh 832 x 624 mode
APPLE Macintosh 1152 x 870 mode

Factory preset data can be re-adjusted by end user through the microprocessor control panel.

The remaining 26 signals other than the factory preset signals can be registered by users through the operation panel. When the signals registration becomes full, the least used data is to be deleted from the memory and the newly input data will be memorized.

3. MECHANICAL SPECIFICATIONS

3.1 CONFIGURATION

Refer to the attached outline drawing.

3.2 DIMENSIONS

Both tilt and swivel angle at 0°.
410 mm(W) x 413 mm(H) x 439 mm(D) (net)
529 mm(W) x 537 mm(H) x 597 mm(D) (gross)

3.3 WEIGHT

19.5 kg (net) 23.5 kg (gross)

3.4 USER CONTROLS

Front
* Power switch
* BNC/D-SUB Selection button
* QuickSet Control Pad
* Auto-Sizing button

Rear
* Termination Switch(75 Ω ↔ ∞)

3.5 POWER CORD

Refer to attached list.

3.6 SIGNAL INPUT CONNECTOR

(a) 5 BNC Connectors
  * H. Sync (or H/V composite Sync)
  * V. Sync
  * Green Video (or Green with Sync)
  * Red Video
  * Blue Video

(b) D-SUB mini 15 pin connector
(See to "Connection Pin Assignment" for further details)

3.7 MAINTENANCE PORT

DIN mini 8 pin connector
  * RS232C

3.8 STANDARD ACCESSORIES

* User's Manual
* Quick Setup Guide
* Registration Card (Excluded: -ES)
* Detachable AC Cord
* MD-C87 VGA Signal Cable (1.8 m)
* CRT Cleaning Cloth
* Utility Disk

NOTE:
The display quality is guaranteed with the EIZO standard and optional cable only.

3.9 CABINET

3.9.1 Front Panel and Back Cover
Material: PS (UL94V-0)
Body Color: Gray (Pantone 414C)

3.9.2 Tilt Swivel Base
Tilt Base
Material: PS (UL94HB)
Body Color: Gray (Pantone 414C)
Tilt Bowl
Material: PPE+PS (UL94 5VA)

3.10 LABEL & MARKING

3.10.1 Name Plate
Location: Rear
Material: Yupo
Body color: Gray
TEXT color: Gray
Size: 70 mm x 130 mm
Serial Numbering: Based on EIZO Standard.

3.11 PACKING CASE

3.11.1 Color
Body: Brown
Graphics: Black
EIZO logo: Black

3.11.2 Material
AB-Flute
(Bursting strength: 200 lbs/inch^2)

4. RELIABILITY & SAFETY

4.1 MTBF

30,000 hours at standard power input without CRT.

* Values calculated according to the simplified "Parts Count Reliability Prediction" method as specified in MIL-HDBK-217F.

4.2 SAFETY ASPECT

4.2.1 X-ray Radiation
Less than 0.1 mR/hour (1 μSv/H) at 10 cm distance.

4.2.2 Anti Static-electricity Effect
Less than 0.5 kV equivalent surface potential in 20 minutes after turning on the power (25 °C/60 % RH) at 10 cm distance.

4.2.3 Anti Low Frequency Electric and Magnetic Field

	MPR-II	TCO
Alternating Electric Fields		
Band 1 (5 Hz~2 kHz)	< 25 V/m	< 10 V/m *1
Band 2 (2 kHz~400 kHz)	< 2.5 V/m	< 1 V/m *2
Alternating Magnetic Fields		
Band 1 (5 Hz~2 kHz)	< 250 nT	< 200 nT *2
Band 2 (2 kHz~400 kHz)	< 25 nT	< 25 nT

1. Measured 30 cm from CRT surface.
2. Measured 50 cm around monitor and 30 cm from CRT surface.
3. All values are RMS.

4.2.4 Dielectric Strength
No break down of the insulators or short circuits when applying the alternate voltage of 1500 VAC for 1 sec. duration between the exposed metal and the input power terminals connected active and neutral lines.

4.2.5 Leakage Current
Less than 1.0 mA at 264 VAC.

4.2.6 Ground Continuity — The resistance between the ground pin of the AC power cord and the exposed metal shall not exceed 0.1 Ω at a 25 Amp. loaded.

4.3 CERTIFICATION AND STANDARDS (Power Supply 220-240 VAC)

Kinds	Standards	Origin	Approved Mark
Safety Standards	TÜV/GS	EN60950, ZH1/618	O
	CB	IEC950	
EMC	CE mark	EN55022B, EN50082-1, EN61000-3-2 EN61000-3-3	O
X-Ray		German X-Ray Law	
Ergonomic	TÜV/Ergonomie Geprüft	ISO9241-3, MPR1990	O
Environment	TCO95		O
Power Save	EPA Energy Star		O
	NUTEK		
	VESA DPMS		

(All the standards plan to be approved by the time mass production starts.)

5. OPERATING ENVIRONMENT SPECIFICATIONS

5.1 AMBIENT TEMPERATURE

Operation: 0 °C ~ 40 °C
Storage: -20 °C ~ 60 °C
(To be kept for 4 hours under 25 °C before use.)

5.2 AMBIENT HUMIDITY

Operation & Storage: 30 % ~ 80 % R.H. Non condensing

5.3 ALTITUDE

Operation: up to 3,000 m
Shipping or Storage: up to 12,000 m

5.4 VIBRATION (Standard Package)

To be free from any damage on 1 hour 1 G vibration test to be carried out under 5~100~5 Hz varying frequencies in every 10 minutes. To be validated along all three axes.

5.5 DROP TEST (Standard Package)

To be free from any damage on free drop from 60 cm height. To be validated one corner, three edges and six faces.

5.6 ELECTROSTATIC DISCHARGE

	Air Discharge	Contact Discharge	Discharge Impedance
Voltage	8 kV	4 kV	330 Ω/150 pF

* Based on IEC1000-4-2/1995

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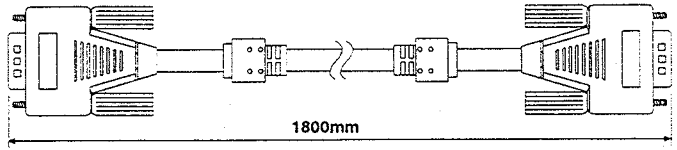
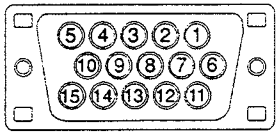
6. SIGNAL CABLE (MD-C87)

VGA Video Signal Cable (D-SUB mini 15 pin to D-SUB mini 15 pin)



7. CONNECTION PIN-ASSIGNMENT

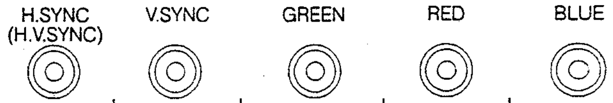
7.1 D-SUB mini 15 pin connector



D-SUB mini 15 pin connector as seen from the rear of the monitor.

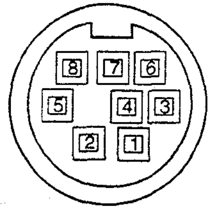
Pin Assignment	Signal	Pin Assignment	Signal
1	RED	9	No pin
2	GREEN	10	GROUND (SHORTED)
3	BLUE	11	
4	GROUND	12	DATA
5	No pin	13	H. SYNC
6	R.GROUND	14	V. SYNC
7	G.GROUND	15	CLOCK
8	B.GROUND	SHELL	GROUND

7.2 BNC connectors



connector / input signal	H. SYNC (H.V. SYNC)	V. SYNC	GREEN	RED	BLUE
SYNC ON GREEN	Non Connection	Non Connection	GREEN COMPOSITE SYNC	RED	BLUE
COMPOSITE SYNC	TTL H/V COMPOSITE SYNC	Non Connection	GREEN	RED	BLUE
SEPARATE SYNC	TTL H. SYNC	TTL V. SYNC	GREEN	RED	BLUE

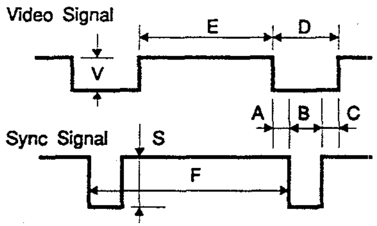
7.3 Maintenance connector



Pin Assignment	Signal
1	N.C.
2	CTS
3	TXD
4	GND
5	RXD
6	RTS
7	N.C.
8	N.C.

8. TIMING CHART

A: Front Porch
B: Sync Period
C: Back Porch
D: Blanking Period
E: Display Period
F: Total Cycle
S: Sync Signal Level
V: Video Signal Level



Sync pulse, both for Horizontal and Vertical signals, has positive or negative (as shown here) polarity combination to encode different modes.

8.1 PRESET TIMING FOR VGA

8.1.1 720 Dots x 400 Lines Mode

	Unit	A	B	C	D	E	F
H	µs	0.636	3.813	1.907	6.356	25.422	31.778
	Dot	18	108	54	180	720	900
V	ms	0.381	0.064	1.111	1.556	12.712	14.268
	Line	12	2	35	49	400	449

Frequencies:	fd/28.322 MHz, fH/31.468 kHz, fV/70.087 Hz
Interlace:	Non
Sync Polarity:	H/Negative, V/Positive
Video Signal Level:	0.7 Vp-p/75 W

8.2 PRESET TIMING FOR VESA

8.2.1 1280 Dots x 1024 Lines (75 Hz) Mode

	Unit	A	B	C	D	E	F
H	µs	0.119	1.067	1.837	3.022	9.481	12.504
	Dot	16	144	248	408	1280	1688
V	ms	0.013	0.038	0.475	0.525	12.804	13.329
	Line	1	3	38	42	1024	1066

Frequencies:	fd/135 MHz, fH/79.98 kHz, fV/75.02 Hz
Interlace:	Non
Sync Polarity:	H/Positive, V/Positive
Video Signal Level:	0.7 Vp-p/75 W

8.3 PRESET TIMING FOR Apple Macintosh

8.3.1 832 Dots x 624 Lines Mode

	Unit	A	B	C	D	E	F
H	µs	0.559	1.117	3.910	5.586	14.524	20.111
	Dot	32	64	224	320	832	1152
V	ms	0.020	0.060	0.784	0.865	12.549	13.414
	Line	1	3	39	43	624	667

Frequencies:	fd/57.28 MHz, fH/49.73 kHz, fV/74.55 Hz
Interlace:	Non
Sync Polarity:	Composite Sync (TTL) Negative
Video Signal Level:	0.7 Vp-p/75 W

8.3.2 1152 Dots x 870 Lines Mode

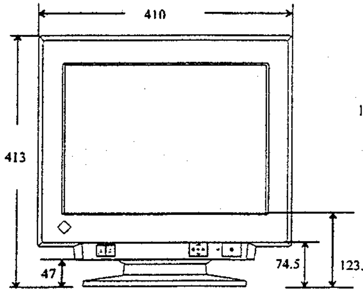
	Unit	A	B	C	D	E	F
H	µs	0.320	1.280	1.440	3.040	11.520	14.560
	Dot	32	128	144	304	1152	1456
V	ms	0.044	0.044	0.568	0.655	12.667	13.322
	Line	3	3	39	45	870	915

Frequencies:	fd/100 MHz, fH/68.68 kHz, fV/75.06 Hz
Interlace:	Non
Sync Polarity:	Composite Sync (TTL) Negative
Video Signal Level:	0.7 Vp-p/75 W

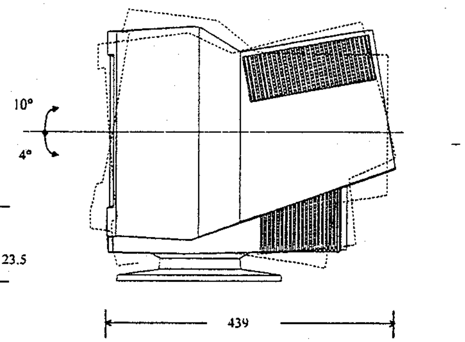
9. OUTLINE

OUTLINE DRAWING

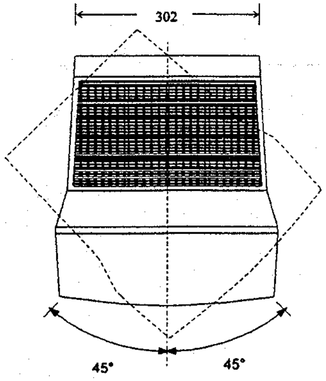
(Unit: mm)



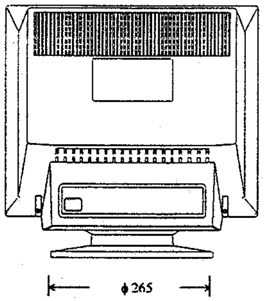
FRONT VIEW



SIDE VIEW



TOP VIEW



REAR VIEW

10. Difference specification table for each destination

July. 96

	Power Supply Voltage	Power Cord	Magnetic field	Note
-ED	220-240 VAC ± 10 %, 50 Hz, 10 A	2.1 m, VDE approved separate cord with 3 pin plug.	BH: +0.25 G BV: +0.45 G	Europe
-ES	220-240 VAC ± 10 %, 50 Hz, 10 A	2.1 m, SEV approved separate cord with 3 pin plug.	BH: +0.25 G BV: +0.45 G	Swiss
-UK	220-240 VAC ± 10 %, 50 Hz, 10 A	2.1 m, BS approved separate cord with 3 pin plug.	BH: +0.25 G BV: +0.45 G	U.K.

SECTION II : DISASSEMBLING PROCEDURE

1. Precautions

Read and completely understand the precautions before attempting service.

⚠WARNING

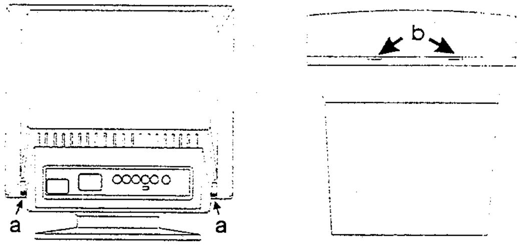
Unplug the power cord before servicing.
The conductive area may become high voltage which can result in electric shock or other hazardous danger.

⚠CAUTION

Take extra care not to touch the sharp edge of the chassis.
It can result in injury.

2. BACK COVER Removal

(1) Remove 2 screws (a) on the bottom rear of the monitor.
(2) Hold down (b) and pull the Back Cover off from the monitor.

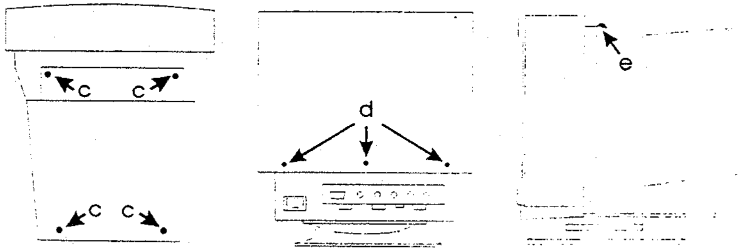


3. Top & Side Shield Removal

(1) Remove 4 screws (c) from the top of the monitor.
(2) Remove TOP-SHIELD from the chassis.
(3) Remove 3 screws (d) from the rear of the monitor. Slide and remove REAR-SHIELD.

When assembling, surely bring SPRING-EARTH of PCB-CRT into contact with REAR-SHIELD.

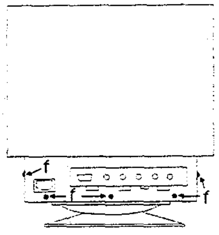
(4) Remove a screw (e) and SIDE-SHIELD from each side of the chassis.



(TOP) (REAR) (BOTH SIDES)

4. ASS'Y VIDEO UNIT Removal

(1) Take step 1~3.
(2) Remove 5 screws (f) holding the UNIT.
(3) Remove 4 connectors (CN330, CN331, CN333, CN334) on PCB-CRT.
(4) Remove a screw holding ASS'Y HARNESS on RADIATOR-M (PCB-MAIN).
(5) Pulling out 3 connectors (CN801, CN802, CN803) on PCB-MAIN connecting PCB-MAIN and PCB-VIDEO, lift and remove the unit from back of the monitor.



(REAR)

5. ASS'Y MAIN UNIT Removal

⚠DANGER

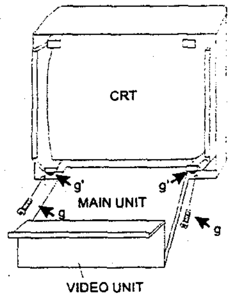
Connect the earth before servicing PCB-MAIN.

When servicing PCB-MAIN with ASS'Y BASE taken OFF, securely connect CRT-SUPPORT (shield) to the GND on the secondary voltage line with leads before turning the power switch ON. If not, the high voltage put into the monitor will not discharge from the CRT. This will result in electric shock or damage.

⚠WARNING

When removing Anode Cap from the CRT, read the precautions and make sure that the high voltage is completely discharged.

(1) Take step 1~3.
(2) Place the monitor on a soft cloth with its CRT side down.
(3) Take off the Anode Cap from the CRT.
(4) Remove the connector (CNANT) on PCB-EFC.
(5) Remove 6 connectors on PCB-MAIN (CN1, CN451, CN452, CN453, CN804).
(6) Remove CN501 on PCB-MAIN and a clamper holding CN501 on PCB-CS.
(7) Remove PCB-CRT from the CRT neck.
(8) Remove 4 screws (g, g') holding the UNIT.
(9) Pull up and remove the unit with VIDEO UNIT, PCB-CRT and ASS'Y TILT.

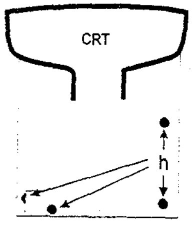


After servicing, equip the PCB-CRT without leaning CN333.

(PCB-MAIN Removal)

(1) Take step 1~4.
(2) Take off the Anode Cap from the CRT.
(3) Remove the connector (CNANT) on PCB-EFC.
(4) Remove 6 connectors on PCB-MAIN (CN1, CN451, CN452, CN453, CN804).
(5) Remove CN501 on PCB-MAIN and a clamper holding CN501 on PCB-CS.

(6) Remove PCB-CRT from the CRT neck.
(7) Remove 4 screws (h) holding PCB-MAIN.
(8) Slide and remove PCB-MAIN with PCB-CRT.



PCB-MAIN

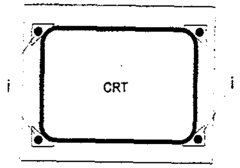
6. PCB-SW Removal

(1) Take steps 1~5 (MAIN UNIT Removal).
(2) Pull up and remove the SW cover on the front with minus driver.
(3) Remove 2 protection covers for the speaker terminal (COVER-B) on the bottom of the monitor with minus driver from the Front Panel.
(4) Remove 2 speaker terminals with minus driver and 2 screws on PCB-SW.
(5) Unfold the stopper of the Front Panel holding STICK-SW and remove the PCB.

When removing the PCB, hold around STICK-SW not to load the PCB.

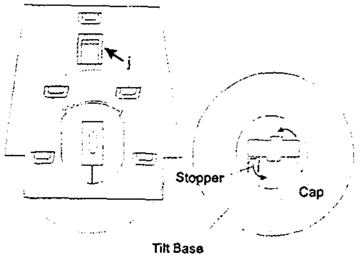
7. FRONT PANEL Removal

(1) Take steps 1~6.
(2) Remove 4 screws (i) holding the Front Panel, CRT and chassis from the back.
(3) Take off the Front Panel from the monitor.



8. ASS'Y TILT Removal

(1) Take off the Back Cover.
(2) Place the monitor on a soft cloth with its CRT side down.
(3) Holding down the stopper (j) on the bottom with minus driver, pull up and remove ASS'Y TILT.
(4) When removing the Tilt Base, hold down the stopper and turn the cap on the bottom of the base.



9. ASS'Y CRT Removal

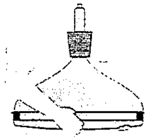
⚠WARNING

1. **Take care not to scratch the coating of the Degauss Coil.**
   This may cause electric shock or damage. Read and completely understand "11. Caution on Degauss Coil" before servicing.

2. **Discharge the high voltage completely before removing Anode Cap.**
   Unplug the power cord before discharging.
   When removing Anode Cap from the CRT, read the precautions at the beginning of this manual and make sure that the high voltage is completely discharged. This may cause electric shock.

⚠CAUTION

Do not lift the CRT by the neck.
When removing the CRT, hold not just the neck but the whole with both hands. The CRT neck is easy to break structurally. Dropping or breaking it may result in injury.



(1) Take step 1~5.
(2) Remove 4 screws (j) holding the CRT onto the Front Panel unit from the back.
(Please refer to '7. FRONT PANEL Removal'.)
(3) Since you cannot put your hands between the CRT and Front Panel because of the Panel's depth, place the CRT on something like a stand covered with soft cloth, pull the Front Panel down and then remove the CRT.

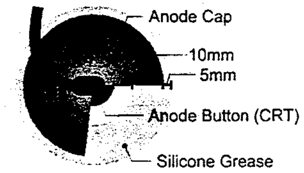
10. Caution on Anode Cap

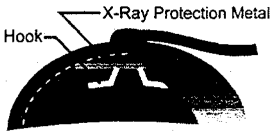
⚠WARNING

When putting the CRT anode lead back onto the CRT, extra care should be taken as follows.

Mistake of the handling will result in damage or electric shock.

(1) Anode button area should be neat and clean. If the area is dirty, blow off all dust and dirt after a work is done.
(2) Silicon Grease (Shinetsu KS-650N) should be applied equally around the area by a paint-brush.
(3) Subject area to be applied with Grease is from 10mm from Anode button through 5mm beyond the Anode lead cap brim.
(4) Anode lead hook should be securely caught inside Anode button.
(5) X-ray protection metal inside Anode lead cap should be securely stuck, covering on the CRT's Anode button.
(6) Anode lead cap shall be completely stuck on the surface and any partial tearing or lifting of it should not be recognized.
(7) Make sure that there is space (20~30mm) between Anode lead cap and DG coil & Rotation Coil .





11. Caution on Degauss Coil

⚠WARNING

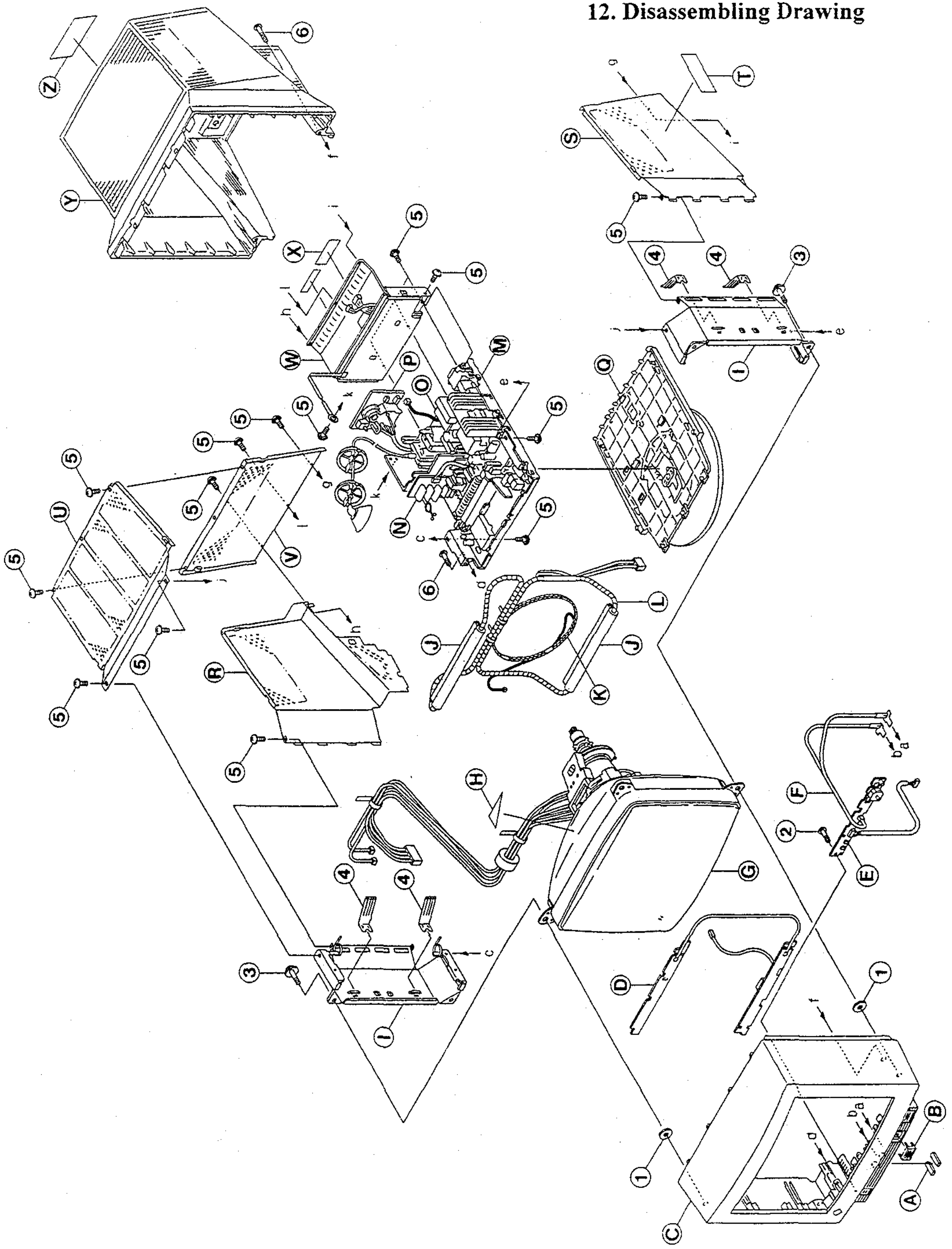
Take care not to scratch the coating of the Degauss Coil.
Degauss Coil circuit is on the primary voltage line. It can result in a hazardous fire or electric shock. Follow the instructions below.

(1) The Degauss Coil has a current of 5~10A. When the coating of the Degauss Coil is damaged and the Coil directly touches the chassis or a screw, the chassis voltage will become the same as the primary voltage line. This can result in hazardous danger as follows.
(1) Electric Shock
(2) Short (Current Leakage)
(3) Degauss does not work
(4) Circuit Damage
(5) Damage of connected computers or peripherals

(2) After the work is done, make certain that there are no damage on the coating of the Degauss Coil.
(1) The Degauss Coil is set in the specified place.
(2) The Degauss Coil does not touch the shields, screws, or other conductive sharp edges.
(3) The Degauss Coil is not pushed or pressed.

(3) To prevent these hazards, carry out "Safety Test" on the beginning of this manual.
(1) Earth Continuity Test
(2) Withstanding Voltage Test

12. Disassembling Drawing



13. From the Drawing

Please refer to the "Parts List" in Section VI and check the CODE number.

	CODE	NAME	DESCRIPTION
A	05C02923B1	COVER-B	
B	05C02840A1	CONTROL-KEY	
C	05C02895A3	ASS'Y FRONT PANEL	
D	05U02417A1	PCB-T ANT	
E	05T01182A1	PCB-T SW	
F	05V03325A1	ASS'Y HARNESS SP	
G	09F31187A1	CRT	M41KSX683X91(U)
H	05D07490A1	HV-WARNING-LABEL	
I	05B01074A1	SIDE-FRAME	
J	05D07695A1	DG-CUSHION	
K	05U02289A1	ASS'Y ROTATION COIL	
L	09F16343B1	ASS'Y ADG COIL	
M	05U02431A1	ASS'Y MAIN UNIT	
N	05U02412A1	PCB-T CS	
O	05U02409A1	PCB-T EFC	
P	05U02413A1	PCB-T CRT	
Q	35C02882C1	ASS'Y TILT	
R	05A00692B2	SIDE-SHIELD-L	
S	05A00692B1	SIDE-SHIELD-R	
T	05D07085A1	CAUTION-27k	
U	05A00691B1	TOP-SHIELD	
V	05B01071B1	REAR-SHIELD	
W	05U02432A1	ASS'Y VIDEO UNIT	
X	05D05660A1	CHASSIS-LABEL	
Y	05A00682A1	BACK-COVER	
Z	-	N.P	
1	05D07802A2	WASHER	
2	0FJ923012D	TAP-TITE-P-BIND	3*12 B-TYPE Zn/Fe
3	0FN965025Z	TAP-SCREW-SEMS-SP	5*25 Zn/Fe
4	05D07077A1	SPRING-EARTH	
5	0FN933008D	B-TITE-SEMS-P-BIND	3*8 Zn/Fe
6	0FJ924016N	TAP-TITE-P-BIND	4*16 B-TYPE Ni/Fe

SECTION III : USING THE MONITOR

1. Controls & Settings

AUTO-SIZING button

Automatically centers the displayed image, bringing the image borders into alignment with the monitor frame. (See page III-5)

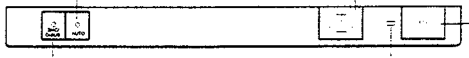
QuickSet™ Control pad

(hereinafter "Control pad")

Use the four arrow keys and the ENTER key to enter adjustments and settings.

Power switch

Switches the monitor's power ON or OFF



BNC/D-Sub Selection button

Selects BNC or D-Sub connector as active input. This function is only used when two computers are connected to the monitor.

Power indicator

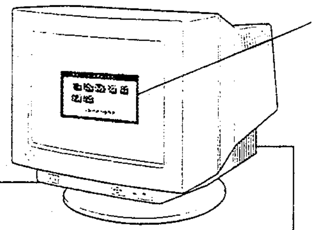
Indicates the power-on status, as follows:

Solid green: Power is ON (normal mode)

Flashing green: PowerManager Mode 1 (power-saving mode)

Yellow: PowerManager Mode 2 (maximum power-saving)

Front



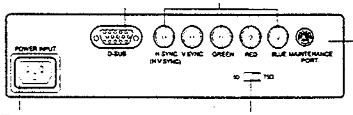
ScreenManager™

As shown on the screen, the ScreenManager is used to adjust to the monitor. Adjustments are made using the Control pad. See page III-4 for futher detail.

Rear

D-Sub 15 pin input connector (mini)

BNC input connector



Maintenance port

Allows optional utilities to be attached.

Power connector

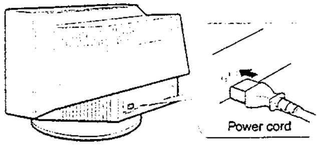
Use the supplied power cord only.

Termination switch

Allows multiple monitors to be chained together. (Default termination is 75 ohms).

2. Installation

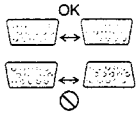
2-1. Connecting Up



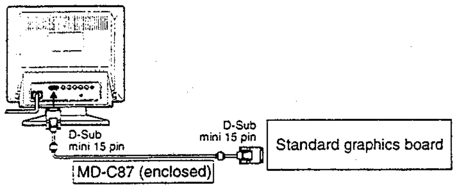
1) Be sure that the power switches on the PC and the monitor are OFF.
2) Plug the power cord into the power connector at the rear of the monitor. Then plug the other end of the cord into a power outlet.
3) Plug the signal cable into the connector at the rear of the monitor. Plug the other end of the cable into the video connector on the rear of the PC. Refer to the figures below.
4) Turn on the monitor power first, then switch on the PC power. The monitor's power indicator (LED) will light up (green). The monitor will warm up briefly, then display an image.

NOTE

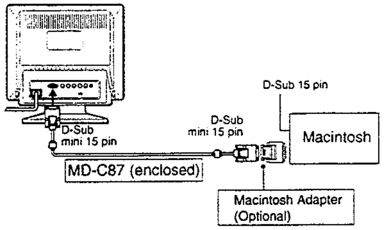
When connecting the signal cable or cable adapter, first check that the shape at the cable side matches the shape at the connecting side (see Figure).
After connecting, secure the connection with the screw-in fasteners.



***Standard graphics board**

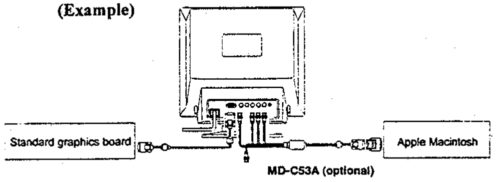


***Macintosh**



2-2. Connecting two PCs to the monitor

(Example)

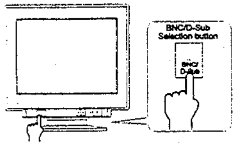


Connect one PC to the monitor's D-Sub connector and another to the BNC connector.

NOTE

- Be sure that the monitor and the PC are both switched off before connecting them.
- Be sure to connect the cable securely.

● Selecting the active input

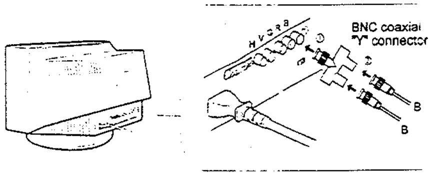


- The front panel's BNC/D-Sub selection button can be used to select BNC or D-Sub as the active input.
- The ScreenManager's "Input Priority" setting (in the Others menu) can be used to set up the automatic selection of the input.

2-3. Linking monitors in a chain

Three to four monitors can be chained together so that they can be controlled from a single source. All monitors will display the same image. This feature is useful, for example, when giving a presentation.

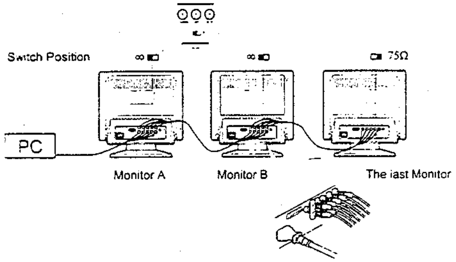
The connection is made through the BNC inputs. Specifically, you attach BNC coaxial "Y" connectors to the BNC inputs on each monitor. Then connect the BNC signal cables. Please make sure the termination switch on each monitor is set appropriately, as described in the chaining procedure.



NOTE

- Any EIZO monitor equipped with a termination switch can be added to the chain.
- In order to maintain image clarity, the total length of chained cables should not exceed approximately 8 m (about three to four chained monitors).
- Termination switches are effective only with BNC connections.
- If a video color printer is included in the configuration, it should be placed at the end of the chain.

Chaining procedure



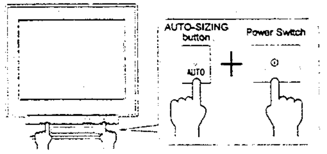
1) Attach BNC coaxial "Y" connectors to each of the BNC inputs (H, V, G, R and B) on the first monitor in the chain (call this Monitor A). Then connect the monitor to the PC, using a signal cable equipped with BNC connectors at the monitor side.
2) Attach BNC coaxial "Y" connectors to the next monitor (monitor B). Connect monitors A and B, this time using a signal cable with BNC connectors at both sides.
3) Connect monitor B to monitor C, and continue in the same manner until all the monitors in the chain have been connected.
4) Set the termination switch on the last monitor in the chain to 75 ohms. Set the termination switches on all other monitors to HIGH IMPEDANCE (∞).

NOTE

- Use a pen or other implement to set the termination switch. Do not push the switch with a screwdriver or other hard object, as this may cause damage to the switch or the monitor.
- When returning to a one-monitor configuration, be sure to reset the termination switch on the monitor to 75 ohms.

* Adjustment Lock

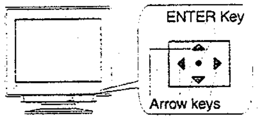
The ScreenManager operation can be disabled by holding down the AUTO-SIZING button while switching on the monitor's power. This will disable ("lock") the ScreenManager and AUTO-SIZING button, protecting from accidental changes. To unlock the buttons: switch the power off, then hold down AUTO-SIZING button once again and turn the power back on.

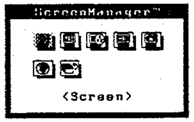


Note that brightness and contrast can be adjusted using the short cut keys (see page III-5) even while the Control pad is locked. After making such an adjustment, push the ENTER key to clear the brightness/contrast adjustment menu from the screen. Also, the BNC/D-Sub Selection button can still be used.

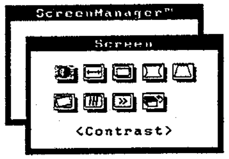
3. ScreenManager

·Using the ScreenManager to make adjustments



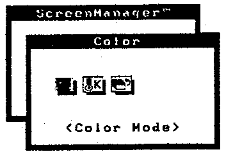


ScreenManager Main menu



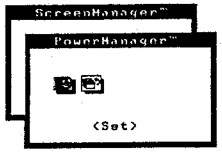
<Screen>

Brightness/Contrast, Horizontal/Vertical Size, Position, Side Pin-cushion/ Trapezoidal adjustment, Tilt, Convergence, Moiré Reduction.



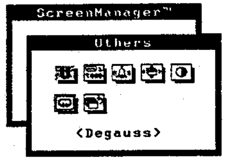
<Color>

Standard color with selection of color temperature and Custom color with adjustment of color tone.



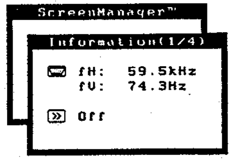
<PowerManager>

Power saving settings.



<Others>

Degauss, Input-signal priority selection for two signal connections, Beep ON/OFF, ScreenManager menu position, Contrast adjustment, Reset to defaults.



fH: 59.5kHz
fV: 74.3Hz
Off

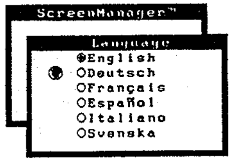
<Information>

Use this feature to review the current ScreenManager settings. The menu contains four pages. Pressing the ENTER key selects the different pages in order. The information displayed on each page is as follows.

- Page 1: Input port, horizontal and vertical frequencies, moiré reduction setting
- Page 2: Color-adjustment settings
- Page 3: PowerManager settings
- Page 4: Input priority (see note), and beep settings

NOTE

The current ScreenManager setting is displayed even if the input selection has been manually overridden by the use of the BNC/D-Sub selection button.



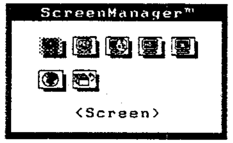
●English
○Deutsch
○Français
○Español
○Italiano
○Svenska

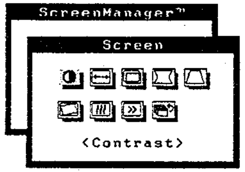
<Language>

First select the preferred language to use. The ScreenManager's messages will appear in the selected language.

3-1.IMAGING ADJUSTMENT

· Screen menu





NOTE

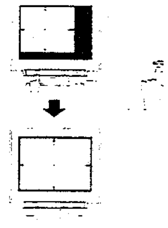
Allow the monitor to stabilize for at least 30 minutes before making image adjustments.

All of the icons shown in the ScreenManager "Screen" menu are described below.

Brightness, Contrast, Size, Position

These functions are used to adjust the brightness, contrast, size and position of the screen.

·AutoSizing



1) Press the AUTO-SIZING button.

2) The auto-sizing function centers the displayed image, aligning the image's borders with respect to the monitor frame. In general, press the AUTO-SIZING button whenever changing the graphics board or the resolution.

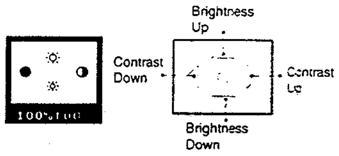
NOTE

- The auto-sizing function is intended for use on Macintosh, and IBM compatibles running Windows. It may not work properly if either of the following applies:
- An AT-compatible PC running MS-DOS (not Windows).
- The background color for the "wallpaper" or "desktop" pattern is set to black.
- Some signals from the graphics board may not function properly.
- A solid-color screen (i.e. red, green, blue) may appear for an instant while performing the auto-sizing function, this phenomenon is not a failure.

3) Adjust the picture size as desired using the Size/Position functions in the ScreenManager 'Screen' menu.

·SHORTCUT KEYS

Before entering the ScreenManager, brightness and contrast can be adjusted directly by moving the Control pad. To record the new setting and exit the ScreenManager, press the Enter key. (The brightness and contrast functions are also available in the ScreenManager 'Screen' menu.)
See the diagram described right for adjustment



Geometry, Tilt

Image distortion and/or tilting may be caused by the earth's magnetic field. Use the Screen menu's geometry (Side-Pincushion, Side-Pin Balance, Trapezoidal, Parallelogram) and/or tilt adjustment functions to correct any distortion.

Image distortion and tilting may also be caused by a device that is generating a magnetic field. If the above adjustments are not effective, try the following approaches.

- Check to see if there are any nearby interfering electronic devices such as another monitor, an electric motor, or a speaker (other than an optional EIZO speaker unit). If so, move the device or move the monitor.
- It is sometimes possible to correct distortion or tilting by reorienting the monitor.

Convergence

Displayed characters and images may appear fuzzy or have tinges of red, green, or blue if the electron beams do not converge correctly. These can be adjusted by the convergence adjustment feature in the ScreenManager.

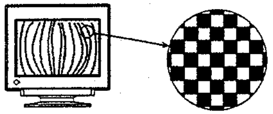
In order to properly adjust convergence, it is best to have an image that makes it easy to see any convergence error. A black background with white letters or lines is the best. This could be a DOS text mode or an image created with a "paint" program.

When adjusting convergence, look at the adjustment across the whole screen. When adjusting horizontal convergence, look at the left and right edges of vertical lines or characters. When adjusting vertical convergence, look at the top and bottom edges of horizontal lines or characters. Proper adjustment is when the effect of red and blue tinges are minimized.

NOTE

The convergence adjustment adjusts the entire screen. It is not possible to limit adjustment to specific screen areas.

Moiré Reduction



(Moiré) (Every-other dot pattern)

NOTE

The screen image may shake slightly while the ScreenManager moiré reduction function is ON. Switching the function OFF will improve image stability and clarity at the expense of slightly greater moiré.

Moiré can be reduced in a variety of ways.

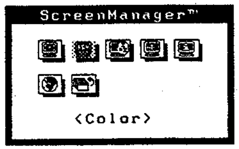
1) Adjust with the ScreenManager's moiré reduction function.
   Adjust so that moiré becomes almost unnoticeable. Before adjusting, set the desktop to an every-other-dot pattern so that moiré will be visible.
   Following the adjustment, change to a different desktop background to reduce moiré even further.

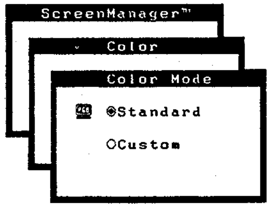
2) Change the horizontal and vertical dimensions.
   Adjust the horizontal and vertical dimensions of the display area as necessary to reduce moiré.

3) Change the selected desktop or wallpaper pattern.
   Use the PC software to change the desktop or wallpaper pattern. Any solid color pattern is recommended. For detailed information on how to change these patterns, refer to the documentation for the PC and operating system.

3-2. Color Adjustment

• COLOR menu





3-2-1. Outline

EIZO monitors have incorporated two color adjustment mode, standard and custom. The "Standard" mode allows the adjustment of the color spectrum. The "Custom" mode allows extensive controls over the colors of the displayed image on the screen.

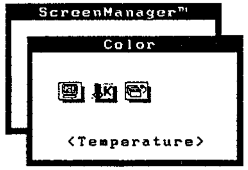
Contents	Application
Standard mode Sets color temperature. Temperature can be set from 4000K to 10000K, in 500K increments. (Additionally, industry standard of 9300K is set as default.)	For routine work and printing.
Custom mode Sets color temperature. Allows for specific adjustments to Red, Green and Blue (R/G/B). This consists of the Cutoff and Gain functions.	For use when high precision color adjustment is necessary (i.e. when there is a need to obtain identical colors on multiple monitors* or match the display color with printout color**.)

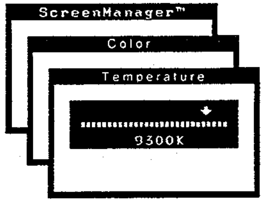
* The color adjustment spectrum may vary between monitors.
** A color calibrator can be used for even higher-precision color adjustment.

NOTE

- Each monitor is slightly different, if two monitors are set to the same color temperature value (i.e. 6500K), they may not necessarily look the same.
- Users should allow at least 30 minutes for the monitor to stabilize before setting the color adjustments or color matching.

3-2-2. Adjusting the Standard mode

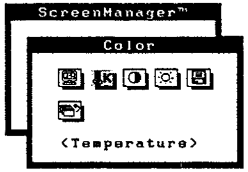




Procedure

1) Go to the 'Color' menu.
2) Select the "Standard mode" setting from the 'Color mode' menu.
3) Select the 'Temperature' icon. A color temperature bar will appear.
4) Adjust the temperature by using the right or left Arrow keys.
5) Press the ENTER key to save the data.

3-2-3. Adjusting the Custom mode



NOTE

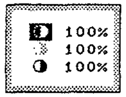
- Before you attempt to change the colors, always start with the color settings set to the "default settings" by using the 'Reset' function in the ScreenManager 'Others' menu.
- If only a quick setting is required, that is close to the desired color, but not exact, skip making any changes to the Cutoff adjustment (step 4). If a precise match is desired, adjustment of the Cutoff levels must be made. We recommend that for exact matching, use a color calibrator.

Procedure

1) For optimum results, before beginning the custom color adjustment, go to the 'Screen' menu and set the display to maximum brightness and contrast. (Use the 'Screen' menu's 'Brightness' and 'Contrast' icons.)
2) Then, return to the 'Color' menu and select the 'Custom mode' setting.
3) Set the color temperature.
   a) Select the 'Temperature' icon from the sub menu.
   b) Select the temperature as desired by moving the arrow keys in any direction.
4) Adjust the Cutoff.

Cutoff

The Cutoff adjustment is the most powerful adjustment. It alters the starting point (the black level) and the ending point (the white level). If the Cutoff level for color is raised or lowered, black, white, and all levels between are raised or lowered by the same degree.



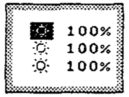
Before adjusting the Cutoff, it is best to display a screen with a black background (such as the DOS command screen).

a) Select 'Cutoff' icon. The screen shown on the left will appear.
b) Adjust each color to create a uniform black screen.

5) Adjust the Gain

Gain

The Gain adjustment has no effect on the starting point (the black level). It changes only the ending point (the white level). The Gain adjustment is used to fine tune the whites and light grays to a good balance.



Before adjusting the Gain, it is best to display a screen image that has a white or grayscale background, such as the operating window for Windows.

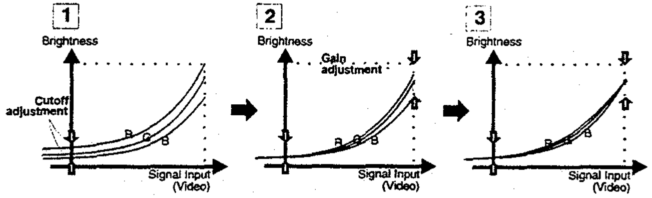
a) Select 'Gain' icon. The screen shown on the left will appear.
b) Adjust each color to create a uniform white screen.

6) To register the adjustment, select the "Save" icon and then press the ENTER key. If the settings are not saved, all adjustments will be lost.

7) Finally, readjust the contrast in the 'Screen' menu to get the best image clarity.

NOTE

- If an inappropriate adjustment is made, corrections can be made by repeating the above procedure starting from Step 3 (temperature setting).
- The values shown in percentages (%) for both the Cutoff and Gain adjustments represent the current level within the specific adjustment only. They are available only as a reference tool. (To create a uniform white or black screen, the percentages for each will probably not be the same.)
- These diagram explains how the color curves were changed for the best adjustment in steps 4 and 5.



Adjust the black level so that the low end of the curve for each color (R,G,B) is equal. as see picture 2.

Adjust the white level so that the high end of the curve for each color (R,G,B) is equal as see picture 3

This setup gives the best color balance.

What is the relation between the color and the brightness adjustments?

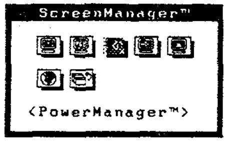
Brightness uniformly adjusts the amount of light output for the entire screen and its background. If it is increases too high the background will become white, too low and many dark colors will not be displayed. It affects all color controls.

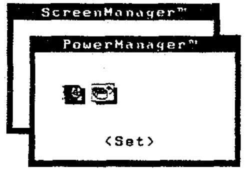
Contrast varies the difference in light output from the lowest to the highest screen intensities. It is the brightness adjustment for the video signal area.

After making the color settings, readjust the contrast to get the best definition and intensity of the colors for the displayed image.

3-3. POWER-SAVE SETUP

●PowerManager menu





What is PowerManager?

The PowerManager feature automatically reduces the monitor's power consumption during idle periods, in accordance with the PCs ScreenSaver software.
There are two PowerSaving modes in the EIZO PowerManager: Mode 1 and Mode 2 (maximum reduction). Even if the monitor is in a power saving mode, it will return to a normal display immediately when the mouse or keyboard is operated.
The EIZO PowerManager functions comply with NUTEK, the VESA DPMS standard, and the EPA's Energy Star guidelines.

Power consumption: In operation: up to 100W (Power Indicator green)
PowerManager Mode 1: less than 10W
(Power Indicator flashing green)
PowerManager Mode 2: less than 5W
(Power Indicator solid yellow)

3-3-1. Set-up Procedure

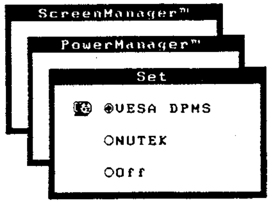
There are two power-save settings for the monitor:
'VESA DPMS' system works with the VESA DPMS signal.
'NUTEK' system works with a screen saver software and Energy Saver for Macintosh which blanks the screen (totally black screen).

Set the monitor to match the PC's power-saving software, as follows.

Monitor setting for matching the PC:

PC	PC Power saving	Monitor setting
DOS/V (Windows) (VESA DPMS activated)	VESA DPMS (Signal)	VESA DPMS
DOS/V (Windows) (VESA DPMS inactivated)	Windows (Control Panel/Desktop/ ScreenSaver: "Blank Screen")	NUTEK
Macintosh	Energy Saver	NUTEK
	ScreenSaver software After Dark/"Blank" settings	NUTEK

●VESA DPMS System


ScreenManager™
PowerManager™
Set
●VESA DPMS
○NUTEK
○Off

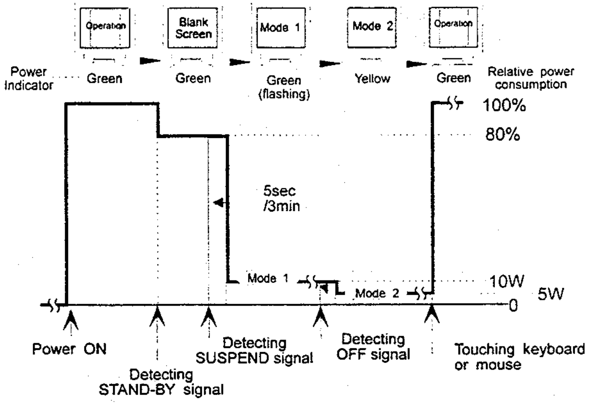
1) First, make the appropriate settings for the PC as explained previously.

2) Then select "VESA DPMS".

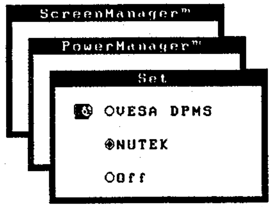
3) Set the delay period, which is the interval that the monitor will wait after receiving a power-save signal from the PC, before entering into Mode 1 or Mode 2.

VESA DPMS power-saving method

VESA DPMS utilizes four signals: ON, STANDBY, SUSPEND, and OFF.
The monitor detects these signals from the graphics board and executes power-saving accordingly, as illustrated below.


Operation
Blank Screen
Mode 1
Mode 2
Operation
Power Indicator
Green
Green
Green (flashing)
Yellow
Green
Relative power consumption
100%
80%
5sec /3min
Mode 1
Mode 2
10W
5W
0
Power ON
Detecting STAND-BY signal
Detecting SUSPEND signal
Detecting OFF signal
Touching keyboard or mouse

●NUTEK System


ScreenManager™
PowerManager™
Set
○VESA DPMS
●NUTEK
○Off

1) First make the appropriate ScreenSaver settings (Macintosh Energy Saver) for the PC.

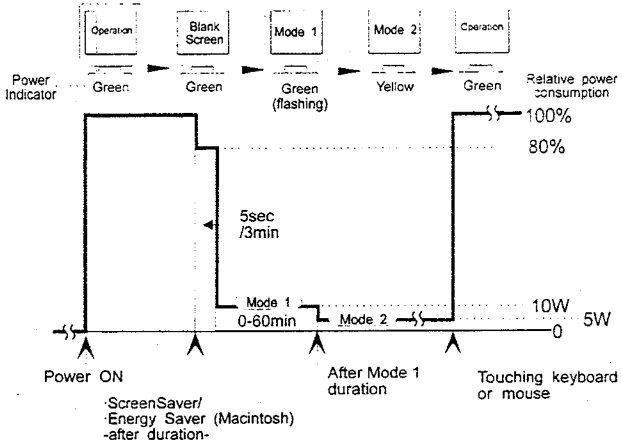
2) Then select "NUTEK".

3) Set the delay time, which is the interval between the time that the ScreenSaver (Macintosh/EnergySaver) blanks the screen and the time that the monitor enters Mode 1.

4) Set the Mode 1 duration time which is the user definable time (0-60 minutes) before the monitor enters Mode 2.

NUTEK power-saving method

Mode 1 operates for a user-definable period in 'Duration' (in 0-60 minutes) before the monitor enters Mode 2. If the keyboard or the mouse are not in use during this period, the monitor will then enter PowerManager Mode 2.


Operation
Blank Screen
Mode 1
Mode 2
Operation
Power Indicator
Green
Green
Green (flashing)
Yellow
Green
Relative power consumption
100%
80%
5sec /3min
Mode 1
0-60min
Mode 2
10W
5W
0
Power ON
·ScreenSaver/
·Energy Saver (Macintosh)
-after duration-
After Mode 1 duration
Touching keyboard or mouse

3-2-2. AutoPower Function

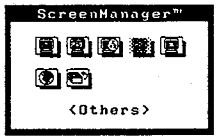
Once the monitor's main power has been switched ON, the monitor will start up automatically whenever the PC is turned on. If the PowerManager is set to VESA DPMS or NUTEK, the monitor will automatically power down (to PowerManager Mode 2) when the PC is turned off. If the PowerManager is set to OFF, however, the monitor power will remain on even after the PC is switched off.

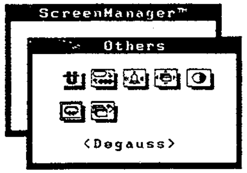
NOTE

- Conserve energy, please turn off the monitor at the end of the day.

3-4. OTHER SETTINGS

- **Others menus**


ScreenManager™
<Others>


ScreenManager™
Others
<Degauss>

All of the icons shown in the ScreenManager "Others" menu are described below.

Degaussing

The monitor automatically degausses every time the power is turned ON and every time it is reactivated from the PowerManager power-saving Mode 2. A degaussing function is provided in the ScreenManager for use at other times. Note that the image vibrates slightly while degaussing is in progress, but will return to normal when degaussing is completed.

NOTE

- The degauss circuitry takes about 30 minutes to regain maximum power following degaussing before it can work again.

Input Priority

This unique feature of the ScreenManager is for those users who utilize two PCs. It allows the user to set the priority on the PC of choice.
The monitor automatically detects the selected "Input Priority" setting every time the power is turned ON (see note). Once the priority is set, whenever a signal is detected at that connection, the monitor will convert to that signal and display the data being sent.
There are three settings available: D-Sub, BNC or Manual. Since the monitor comes with a standard D-Sub cable, the default priority setting is set to D-Sub.
If only a single PC is connected and the standard bundled cable is used, no special setting is required.

Use this function to select which of two connected PCs controls the monitor.

Priority setting	Performance
D-Sub	The monitor automatically detects and displays signals received from the D-Sub or BNC input. If signals from both inputs are present, the monitor displays the D-Sub signal.
BNC	The monitor automatically detects and displays input signals received at the BNC or D-Sub nput. If signals from both inputs are present, the monitor displays the BNC signal.
Manual	The monitor does not detect signals automatically. Select the active input by pressing the BNC/D-Sub selection button on the monitor's front panel.

NOTE

- The ScreenManager priority setting can be overridden at any time by using the BNC/D-Sub selection button on the front panel. Priority selection will be restored when the PC or monitor is switched ON again.

Beep

Use this feature to set the beeper ON or OFF. If the beeper is ON, the monitor will generate beep signals as shown below. If the beeper is OFF, the monitor will not beep.

Menu Position, Menu Contrast

Use these functions to adjust the position, contrast and brightness of the ScreenManager menu. When adjusting color, it is useful to adjust the contrast and brightness of the ScreenManager menu according to the background.

Reset

Use this function to return all ScreenManager parameters (size, position,geometry, color, PowerManager etc.) to their factory default settings. Default settings are as follows.

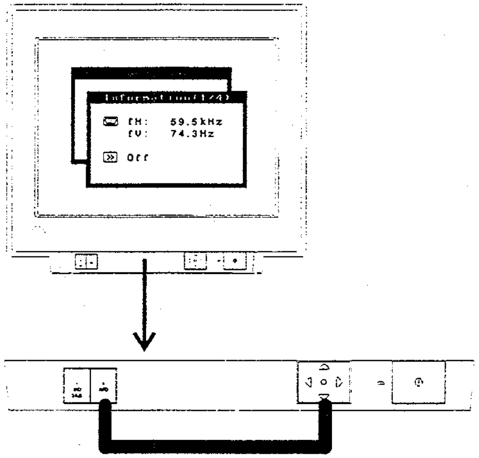
·	Image:	Moiré Reduction = OFF
·	Color:	Standard/9300K
·	PowerManager:	VESA
·	Others:	Input Priority = D-Sub Beep = ON
·	Language:	English

SECTION IV : ADJUSTMENTS

1. Microprocessor Adjustments

These adjustments are done through the microprocessor in the monitor. You must get into the Factory Adjustment Mode for this adjustment. ScreenManager function is used to make adjustments in the microprocessor.

1-1 How to get into the Factory Mode



(1) Display Information (1/4) in ScreenManager User Mode.

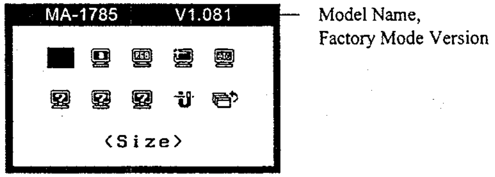
(2) Press down-arrow key of QuickSet™ Control Pad and AutoSizing button at the same time for a few seconds. Now you are in **Factory Mode.**

After finishing the adjustments, be sure to get back into User Mode (Normal use). To get back into User Mode, turn OFF the Main Power SW and turn it ON again.

1-2 Factory Mode Menus

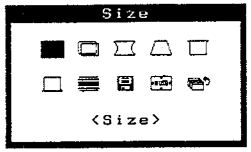
1-2-1 Main Menu

Select the item in the Main Menu and then adjust each of them in the Sub Menus.
More details are explained later in this section.



1-2-2 Sub Menus

1. Size

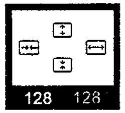


☐ Each icon is selected in "Size" menu.

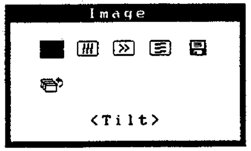
☐ Each adjustment screen will be displayed as follows.

☐ Counting below the selected icon : 0~255

☐ After the adjustment, select "Save" icon in "Size" menu to store the data.



2. Image

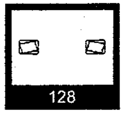


☐ Each icon is selected in "Image" menu.

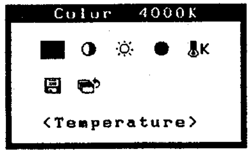
☐ Each adjustment screen will be displayed as follows.

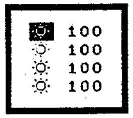
☐ Counting below the selected icon : 0~255

☐ After the adjustment, select "Save" icon in "Image" menu to store the data.



3. Color





☐ Each icon is selected in "Color" menu.

☐ Each adjustment screen will be displayed as follows.

☐ Percentage on the right of the selected icon : 0~100%

☐ Default Settings of the Color Mode is 9300K.

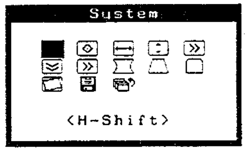
☐ "Gain" (RGB Gain, Sub-contrast adjustment) and "Cut Off" (RGB Cut-off, Sub-brightness adjustment) icons can be selected in 4000K, 6500K, or 10000K.

☐ "ABL" icon can be selected in 9300K.

☐ After the adjustment, select "Save" icon in "Color" menu to store the data.

☐ Do not use "Temp. Param." icon not to change the parameter of each color temperature.

4. System

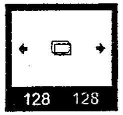


☐ Each icon is selected in "System" menu.

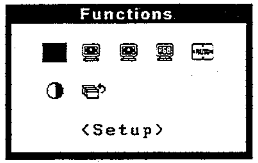
☐ Each adjustment image will be displayed as follows.

☐ Counting below the selected icon : 0~255

☐ After the adjustment, select "Save" icon in "System" menu to store the data.



5. Functions



☐ When the "Size Delete" function is performed, the Factory Set Data (Default Settings) will be deleted.

☐ When the "Color Copy" function is performed, the color data set by the user will be deleted.

☐ Do not use "Contrast Save" icon (for MA-1570 only). If not, contrast and brightness at Setup or Reset will not be 100% and right setup is impossible.

2. General Adjustment

Before starting general adjustment, following tools are recommended to do below tuning :

- Ceramic or plastic flat driver
- Scale(more than 300mm)
- Oscilloscope
- High impedance voltage meter
- Digital voltage meter
- Signal Generator
- *VESA Compatible Graphics Board
- Degaussing Bar
- High voltage probe
- Brightness meter (ft-L)
- Silicon rubber (SINETSU chemical KE490RTV, KE3490RTV or Sony chemical SC-901)

2-1 **Signal Source** (analog signals)

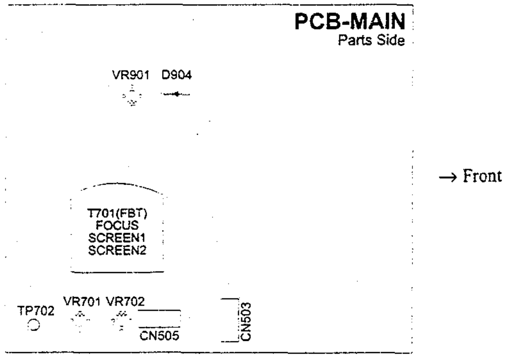
*VESA Compatible Graphics Board

No	Source	Dot/ Line	fH fV	FP (sec)	Sync (sec)	BP (sec)	Display (sec)	Total (sec)	Sync form
1	VGA	720 x 400	31.47kHz 70.09Hz	0.636μ 0.381m	3.813μ 0.064m	1.907μ 1.112m	25.422μ 12.711m	31.777μ 14.268m	Nega/ Posi
2	VGA	640 x 480	31.47kHz 59.94Hz	0.636μ 0.318m	3.813μ 0.064m	1.907μ 1.049m	25.422μ 15.253m	31.778μ 16.683m	Nega/ Nega
3	*VESA	640 x 480	37.50 kHz 75.00Hz	0.508μ 0.027m	2.032μ 0.080m	3.810μ 0.427m	20.317μ 12.800m	26.667μ 13.333m	Nega/ Nega
4	*VESA	800 x 600	46.88kHz 75.00Hz	0.323μ 0.021m	1.616μ 0.064m	3.232μ 0.448m	16.162μ 12.800m	21.333μ 13.333m	Posi/ Posi
5	*VESA	1024 x 768	60.02kHz 75.03Hz	0.203μ 0.017m	1.219μ 0.050m	2.235μ 0.466m	13.003μ 12.795m	16.660μ 13.328m	Posi/ Posi
6	*VESA	1024 x 768	68.68kHz 85.00Hz	0.508 μ 0.015m	1.016μ 0.044m	2.201μ 0.524m	10.836μ 11.183m	14.561μ 11.765m	Posi/ Posi
7	*VESA	1280 x 1024	79.98kHz 75.02Hz	0.119μ 0 m	1.067μ 0.113m	1.837μ 0.591m	9.481μ 10.802m	12.504μ 11.505m	Posi/ Posi
8	MAC	640 x 480	35.00kHz 66.67Hz	2.116μ 0.086m	2.116μ 0.086m	3.175μ 1.114m	21.164μ 13.714m	28.571μ 15.000m	Comp.: Nega Sep.: Nega/ Nega
9	MAC	832 x 624	49.73kHz 74.55Hz	0.559μ 0.020m	1.117μ 0.060m	3.910μ 0.784m	14.524μ 12.549m	20.111μ 13.414m	Comp.: Nega Sep.: Nega/ Nega
10	MAC	1024 x 768	60.24kHz 75.02Hz	0.400μ 0.050m	1.200μ 0.050m	2.200μ 0.481m	12.800μ 12.749m	16.600μ 13.330m	Comp.: Nega Sep.: Nega/ Nega
11	MAC	1152 x 870	68.65kHz 75.03Hz	0.320μ 0.044m	1.281μ 0.044m	1.441μ 0.568m	11.525μ 12.673m	14.566μ 13.328m	Comp.: Nega Sep.: Nega/ Nega
12	PC-9801	640 x 400	24.83kHz 56.42Hz	3.040μ 0.282m	3.040μ 0.322m	3.800μ 1.007m	30.400μ 16.112m	40.280μ 17.723m	Nega/ Nega
13	PC-9821 Ap2	640 x 400	31.50kHz 70.15Hz	0.635μ 0.413m	2.540μ 0.063m	3.175μ 1.079m	25.400μ 12.700m	31.750μ 14.256m	Nega/ Nega
14	8514/A	1024 x 384	35.55kHz 86.92Hz	0.178μ 0 m	3.898μ 0.113m	1.247μ 0.591m	22.806μ 10.802m	28.129μ 11.505m	Posi/ Posi
15	AUTO-SIZE 60k	-	60.02kHz 75.03Hz	0.080μ 0 m	1.220μ 0.050m	2.060μ 0.300m	13.300μ 12.978m	16.660μ 13.328m	Posi/ Posi
16	TEST 24k	-	24.50kHz 49.01Hz	3.570μ 0.694m	3.040μ 0.326m	3.800μ 1.020m	30.400μ 18.364m	40.810μ 20.405m	Posi/ Posi
17	TEST 160Hz	-	85.98kHz 160.12Hz	0.650μ 0.024m	1.000μ 0.058m	1.100μ 0.360m	8.880μ 5.803m	11.630μ 6.245m	Nega/ Nega
18	SIZE 1785	-	49.73kHz 110.75Hz	1.230μ 0.382m	1.120μ 0.040m	3.230μ 0.563m	14.530μ 8.044m	20.110μ 9.029m	Posi/ Posi

2-2 Adjustment Location

Symbol	Name	PCB	Preset
VR901	88V	MAIN	adjusted
VR701	H.V		center
VR702	X. Pro		center
T701	FOCUS 1		center
T701	FOCUS 2		center
T701	SCREEN		counter-clockwise

Adjustment Location for PCB-MAIN ...seen from parts side



2-3 Electrical Adjustment

- ■ Before starting any adjustment, read and observe all safety precautions shown earlier in "NOTICE".
- ■ Make sure that all PCBs, chassis parts and connectors are in the right positions.
- ■ Assure the AC input power source is within the specified operating range, ± 2volts.

Short only the specified portion on the circuit.

If not, the circuit will be damaged.

◆ Signal Timing used for the adjustment

Use the **Signal No. 7 (VESA 1280x1024/75Hz)** unless otherwise specified.

◆ Adjustment Procedure

* '3~5', '7~9', '11~12' and '13~18' are needed to be performed in order. If not, this may cause damage of the circuit.

	Adjustment	VR /ScreenManager for Adjustment	Measurement Point
1	Preset	SCREEN/FOCUS 1/FOCUS 2	-
2	88VDC	VR901	D904 cathode - GND
3	High Voltage	VR701	CRT Anode - GND
4	G2 Voltage	SCREEN	G2 terminal - GND
5	X-ray Protection	VR702	CN505 1 pin - 2 pin
6	H.HOLD	"Functions" H-Hold	
7	H. Position	"System" H-Shift	
8	H. SUB Size	"System" H-Size Limit	
9	H. Drive	"System" H-Drive	CN503 1 pin-2 pin
10	Cross-Over	"System" Cross-Over	
11	Tilt	"Image" Tilt	
12	Color Purity		
13	Size/Position/Distortion	"Size" Size	
		"Size" Position	
		"Size" Side Pin.	
		"Size" Trapezoidal	
		"System" Side Pin. Corner	
		"Size" Side Pin. Top	
		"Size" Side Pin. Bottom	
		"System" Side Pin. Phase	
14	V. Linearity	"Size" V-Linear	
15	AutoSizing (AutoSize Save 3)	"Size" AutoSize Save	
16	V. SUB Size	"System" V-Size Limit	
17	AutoSizing (AutoSize Save 1, 2)	"Size" AutoSize Save	
18	Dynamic Focus	"System" H-DF	TP702
		"System" V-DF	TP702
		"System" H-DF Phase	DY red lead
19	Convergence	"Image" Convergence	
		"Image" V-Conver. T/B	
20	Size/Position/Distortion (Registration of factory preset signals)	"Functions" SizeDelete All	

1. Preset... (cross-hatch signal)

(1) Listed signals on "2-1 Signal Source" are required. If they are not available, use properly programmed signal generator with signal timing of the above mentioned signal source.
(2) Adjust SCREEN VR on the FBT(T701) so that back-raster slightly appears.
(3) Adjust FOCUS 1 and FOCUS 2 VRs on the FBT to get the best focused characters.
(4) Set the size to approx. 312x234mm and preadjust the brightness.

2. 88VDC Adjustment... (white-field signal)

(1) Set the Digital voltage meter between D904 (PCB-MAIN) cathode and GND
(2) Adjust to **88.0 ± 0.3VDC** using VR901 on PCB-MAIN.
(3) Lock VR901 with silicone rubber after the adjustment.

3. High Voltage Adjustment... (cross-hatch signal)

⚠DANGER

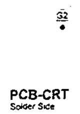
Turn off the power switch and then connect the high voltage meter.

Adjusting High Voltage with the monitor operating is seriously dangerous. It may cause electric shock.

(1) Set the probe of high impedance voltage meter between Anode button and GND.
(2) Adjust VR701 on PCB-MAIN to get the voltage **27.0 ± 0.3kV**.
(3) Seal VR701 with silicone rubber after the adjustment.

4. G2 Voltage Adjustment... (cross-hatch signal)

(1) Set the high voltage probe (1000:1) to the G2 terminal on PCB-CRT solder side.
(2) Adjust T701 (FBT) SCREEN VR to get the voltage **700 ± 10V**.



5. X-ray Protection Adjustment... (cross-hatch signal)

Do not display ScreenManager. Reduce the raster brightness level enough.

(1) Set the Digital voltage meter between CN505 (PCB-MAIN) 1 pin and 2 pin (GND).

Use an extension connector when making adjustments. If you short between pins, you will damage the circuit.

(2) If the voltage is out of range, adjust to **1.97 ± 0.03VDC** using VR702 on PCB-MAIN.
(3) Lock VR702 with silicone rubber after the adjustment.

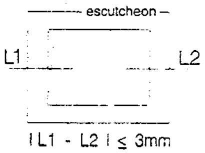
6. H. HOLD Adjustment... (cross-hatch signal)

(1) Get into the Factory Mode following step 1-1.
(2) Receive the signal and select "H-Hold" icon in "Functions" menu.
(3) When selecting "OK", H. Hold adjustment is performed automatically.

7. H. Position Adjustment... (black-field signal)

Perform V.Linearity adjustment before H. SUB Size adjustment.

(1) Get into the Factory Mode.
(2) Select "H-Shift" icon in "System" menu.
(3) Adjust using the Control-key to set the horizontal raster position at the center of the bezel.(See the drawing.)
(4) After the adjustment, select "Save" icon in "System" menu to store the data.



8. H. SUB Size Adjustment... (Signal No. 18 or Signal No.9 white-field signal)

(1) Get into the Factory Mode.
(2) Set the Side Pincushion at straight on both edges.
(3) Receive the signal and select "H-Size Limit" icon in "System" menu. (H. Size is set to maximum automatically.)
(4) Adjust the screen to get over-scanned image of the available display area. (Approximately 2mm to both sides.)
(5) After the adjustment, select "Save" icon in "System" menu to store the data.

9. H. Drive Adjustment... (cross-hatch signal)

Perform H. Drive adjustment after H. SUB Size adjustment.

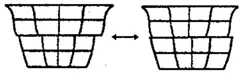
(1) Get into the Factory Mode.
(2) Select "H-Drive" icon in "System" menu. (H. Size is set to maximum automatically.)
(3) Connect the Digital voltage meter in between CN503 (PCB-MAIN) 1 pin and 2 pin and adjust to get the minimum value on the meter.

Use an extension connector when making adjustments. If you short between pins, you will damage the circuit.

(4) After the adjustment, select "Save" icon in "System" menu to store the data.

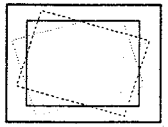
10. Crossover Distortion Adjustment ... (cross-hatch signal)

(1) Get into the Factory Mode.
(2) Select "Cross Over" icon in "System" menu.
(3) Adjust using the Control-key so that the center vertical lines are straight from top to bottom.
(4) After the adjustment, select "Save" icon in "System" menu. to store the data.



11. Tilt Adjustment... (cross-hatch signal)

(1) Get into the Factory Mode.
(2) Select "Tilt" icon in "Image" menu.
(3) Adjust using the Control-key so that the raster is parallel with the escutcheon. (See the drawing.)
Confirm that the tilt value is between 60 and 195 at this time.
If going over the above value, correct it by turning DY.
(4) After the adjustment, select "Save" icon in "Image" menu to store the data.



12. Color Purity Check

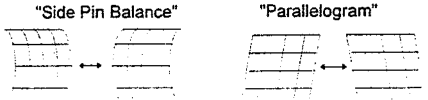
(1) Separately display red, green, blue and white rasters in all four directions to check uniformity and color purity.
(2) When satisfactory purity is not obtained, adjust with magnet.

When degaussing CRT surface and around the display with a Degaussing bar, set the value of ScreenManager "Tilt" to 128.

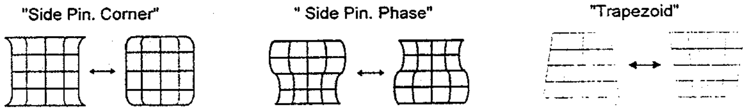
13. Distortion Adjustment... (white cross-hatch signal)

Select "Save" icon to store the data when switching each ScreenManager menu.

(1) Get into the Factory Mode.
(2) Receive the signal and select "Tilt" icon in "Image" menu
(3) Adjust with the Control-key so that the horizontal lines of the cross-hatch pattern are straight from top to bottom.
(4) Select "Side Pin." and "Trapezoidal" icon in "Size" menu to adjust with the Control-key so that the center vertical lines are straight from top to bottom.



(5) Select "Side Pin." icon in "Size" menu and "Side Pin. Corner" and "Side Pin. Phase" icon in "System" menu to adjust with the Control-key so that the center vertical lines are straight from left to right.
(6) After the adjustment, select "Save" icon in each menu to store the data.
(7) Select "Trapezoidal" icon in "Size" menu to adjust with the Control-key so that the vertical lines are straight from top to bottom.



(8) After the adjustment, select "Save" icon in "Size" menu to store the data.
(9) Select "AutoSize Save" icon and "AS3" in "Size" menu to store the distortion adjustment data.

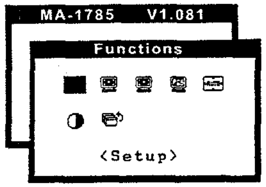
14. V. Linearity Adjustment... (cross-hatch signal)

Perform V.Linearity adjustment before V. SUB Size adjustment.

(1) Preadjust the vertical position to the center of the screen and the vertical size to approx. 237mm before getting into the Factory Mode.
(2) Get into the Factory Mode.
(3) Select "V-Linear" icon in "Size" menu.
(4) Adjust using the Control-key (up & down arrow keys) to get the most favorable linearity at top and bottom of the crosshatch pattern.
(5) Adjust using the Control-key (left & right arrow keys) to get the most favorable linearity at top bottom and center of the crosshatch pattern.
(6) After the adjustment, select "Save" icon in "Size" menu to store the data.
(7) elect "AutoSize Save" icon and "AS3" in "Size" menu to store the adjustment data.

2-6 Default Settings

When the Microprocessor Adjustments are finished, the settings should be set to default if necessary. Perform the following procedures.



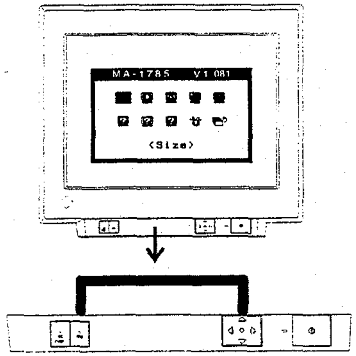
◆How to set

(1) Select "Setup" icon in "Functions" menu.
(2) Select "OK" when "OK/Cancel" confirmation screen appears.

◆The default settings for ScreenManager are as below.

▪ Moiré	OFF, minimum level
▪ COLOR MODE	9300K (Standard)
▪ PowerManager	VESA DPMS, 5 sec, 60 min
▪ Menu Size	Normal, position at center-bottom
▪ Input Priority	D-Sub
▪ Beep	ON
▪ Language	English
▪ Compulsory Factory Mode Cancel	

2-7 Information



The Current information of the monitor can be confirmed in Screen Manager Factory Mode.

(1) Get into the Factory Mode.
(2) Display Main Menu and press up-arrow key of QuickSet™ Control Pad and AutoSizing button at the same time.
(3) You can get information at Main Menu title.

◆Information

- Model name, ScreenManager Factory Mode version
- Brand name, ScreenManager language
- Total operation time
- Input frequency, Polarity
- Priority voltage

3. ITC Adjustment

This section is to be referred to after completing all the requirements in the preceding section.

3-1 Setting the Monitor

For correct adjustment, check the East to West magnetic axis at your work bench and align the neck of the CRT to it.

3-2 Before the Adjustment

Please perform the following things before starting the ITC Adjustment.

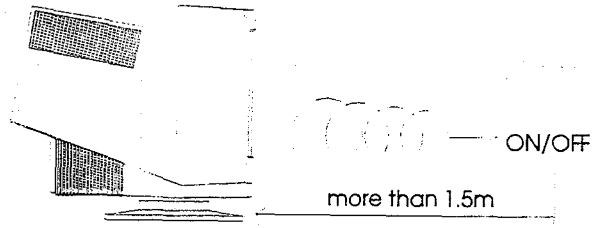
*Manual Degaussing

Using a Degaussing Bar, thoroughly degauss CRT surface and around the display.

When using the Degaussing Bar, please follow the instructions below. If not, it may result in a damage of the monitor or lose its picture quality.

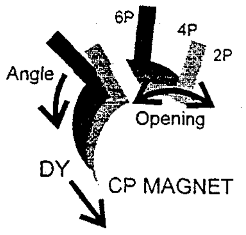
When degaussing, set the value of ScreenManager "Tilt" to 128.

(1) Do not turn ON and OFF the switch of the Degaussing Bar closely next to the monitor.
(2) Use the Degaussing Bar more than 5cm away from the monitor.
(3) When degaussing the CRT surface, start from the front of the CRT and slowly get it away by circling the Degaussing Bar. Turn OFF the power switch more than 1.5m away from the monitor.



3-3 Static Convergence Adjustment (4P)

(1) Receive Magenta crosshatch signal.
(2) Rotate and adjust the 4P Magnet to align the Red and Blue crosshatch lines exactly one on top of another.
Rotation of the magnet ... shifts the direction of two colors
Opening of the magnet ... shifts the distance between the two colors
(Both movements cause the same rate of change to both colors.)



2P...Purity
4P...Blue-Red Adjustment
6P...Green-Magenda Adjustment

3-4 Static Convergence Adjustment (6P)

(1) Receive White crosshatch signal.

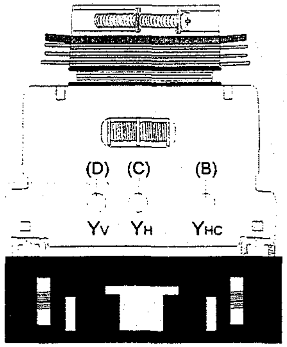
(2) Rotate and adjust the 6P Magnet to align the GREEN and MAGENDA crosshatch lines exactly one on top of another.
Rotation of the magnet ... shifts the direction of two colors
Opening of the magnet ... shifts the distance between the two colors
(The Green pattern will remain stationary.)

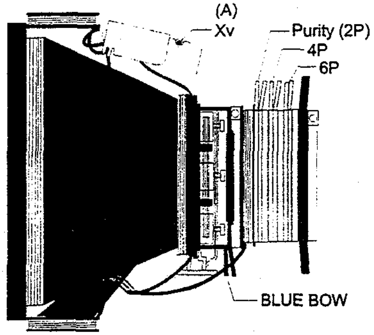
(3) Repeat Static/Dynamic Convergence Adjustments until satisfactory adjustments are obtained.

(4) If correct convergence is obtained, lock the fixing screw with paint.

3-5 Deflection Yoke Adjustment

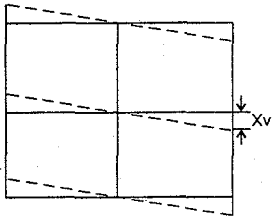
There are extra adjustment points on the DY. These adjustments are normally not necessary. However, if the DY is replaced or if it is obvious that it can be improved by the adjustments, please refer to the following instructions.





(a) Xv adjustment

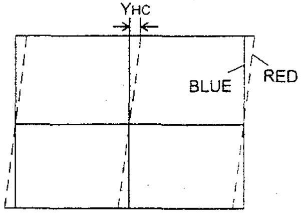
If misconvergence shown on right still remains, turn the core of Xv COIL (A) by inserting a hex head adjusting bar from the other side of the coil shown in the figure.



(b) YHC adjustment

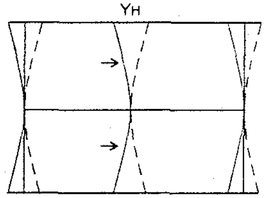
If misconvergence shown on right still remain after performing step (a), turn YH adjusting VR (B) on the DY.

RED on BLUE will move to the opposite side. Input White crosshatch signal and check convergence between GREEN and RED/BLUE(MAGENDA). If misconvergence still appears, adjust using 6p magnet.



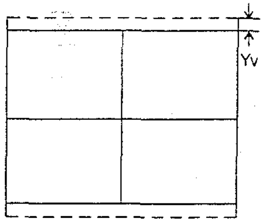
(c) YH adjustment

If misconvergence shown on right still remains, turn VR(C) on DY.



(d) Yv adjustment

If misconvergence shown on right still remains, turn VR(D) on DY.



3-6 Adjustments by Magnets

After performing the adjustments shown previously in this section, use RED and GREEN Magnets, Ferrite Sheets, or Spoiler Magnets on the CRT funnel to adjust more delicate misconvergence.

SECTION V : TROUBLESHOOTING

1. Troubleshooting Map

Subject Blocks & Units :

S : Input Signal
M : PCB-MAIN
R : CRT
P : PCB-POWER
A : ITC Adjustment
V : PCB-VIDEO
W : PCB-SW

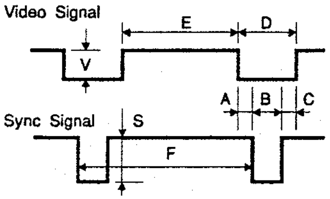
Phenomena	Defective Section						
	S	P	V	M	A	W	R
Nothing on the screen LED doesn't light / LED blinks	×	×	×	×			
LED lights but no raster			×	×	×		×
Raster appears but no picture	×		×	×		×	×
Horizontal/Vertical size is not correct				×			
Horizontal position is not correct	×			×			
Vertical position is not correct	×			×			
Horizontal/Vertical sync. is not correct	×			×			
Focus is not correct			×	×	×		×
Horizontal/Vertical Linearity is not correct				×			
Distortion problem				×	×		
Convergence is not correct				×	×		
Purity is not correct				×	×		
Display noise appears on the screen			×	×			
Image is displayed but too bright or too dark	×		×	×			×
White balance is not correct	×		×		×		
Image problem (overshoot, smear)	×		×				
Power Save function does not work			×	×			
AutoSizing function does not work			×				
Adjustment Buttons does not work						×	
Input Priority function does not work			×				

2. Input Signal

- * The standard Input Signal for the following troubleshooting is VGA signal. (640x480/31.5Hz)
- * Make sure that the signal cable is securely connected to the computer.

If the timing of video signal and sync. signal is considerably different from the recommended timing, different phenomena may happen as listed on below table. In such cases, please adjust the subject timing closer to the recommended timing.

A : Front Porch (FP)
B : Sync Period (SYNC)
C : Back Porch (BP)
D : Blanking Period (BLK)
E : Display Period (DISP)
F : Total Cycle (PERIOD)
S : Sync Signal Level
V : Video Signal Level


Video Signal
E
D
V
Sync Signal
S
A
B
C
F

Phenomena	Cause	Countermeasure
Image is too bright and saturated	*V is higher than 1Vp-p	*Adjust V to 0.7Vp-p
Image is not bright enough	*V is lower than 0.6Vp-p	*Adjust V to 0.7Vp-p
Display size is too large.	*Horizontal or Vertical DISP is too wide	*Adjust DISP from 70% to 80% of PERIOD
Display size is too small	*Horizontal or Vertical DISP is too narrow	*Adjust DISP from 70% to 80% of PERIOD
Image is close to top or bottom of bezel	*Vertical FP is too wide or too narrow	*Adjust Vertical FP from 3H to 6H
Image is close to right or left of bezel	*Horizontal FP is too wide or too narrow	*Adjust Horizontal FP from 0.1us to 1.0us
Right and/or left of image is clipped	*Horizontal BLK is too short	*Adjust Horizontal BLK more than 3.5us
Top and/or bottom of image is clipped	*Vertical BLK is too short	*Adjust Vertical BLK more than 500us
Display does not sync	*S is lower than 0.2Vp-p	*Adjust S to 0.3Vp-p±10%
Display does not sync	*Horizontal or Vertical SYNC is narrow	*Adjust Horizontal SYNC more than 1.6µs. Adjust Vertical SYNC from 3H to 6H
Top of image is curled	*Horizontal FP is 0µs	*Adjust Horizontal FP more than 0.1us
Top of image is curled	*1/2H EQ pulse exists	*Remove 1/2H EQ pulse
Image is blurred	*Horizontal BP is narrow	*Adjust Horizontal BP more than 1.2us

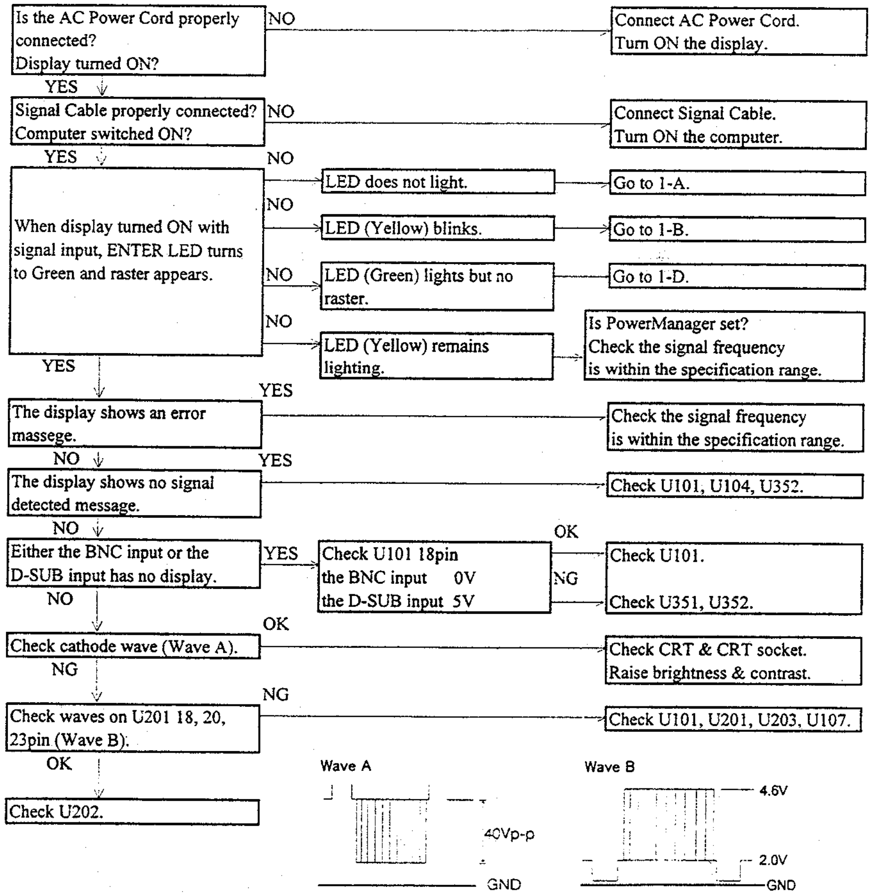
3. Troubleshooting Chart

⚠DANGER

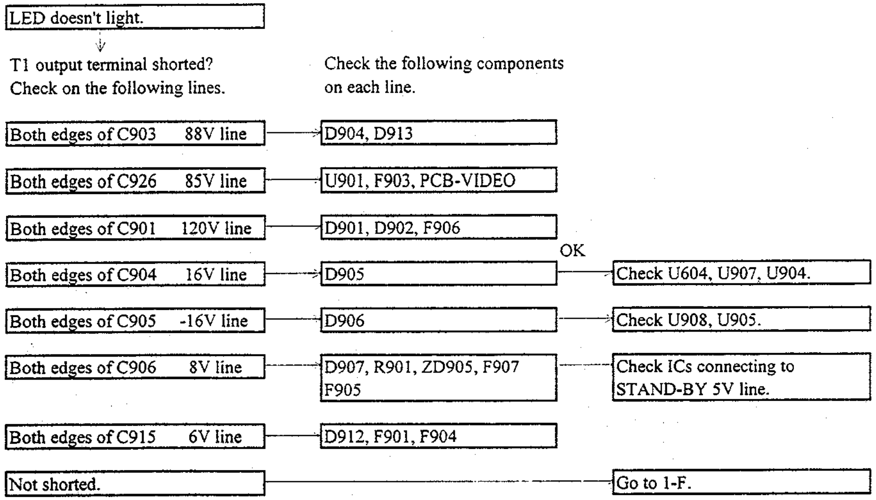
When adjusting or servicing the PCB with the power switch ON, securely connect the edge of the CRT (integral implosion protection band) to the GND on the PCB (Radiator, etc.) with leads before turning the power switch ON. If not, the high voltage put into the monitor will not discharge from the CRT. This will result in serious electric shock or damage.

After removing and servicing PCB-MAIN, equip the PCB without putting on holders of ASS'Y BASE.
If not, noise will appear on the screen.
In addition, Power SW will not be pushed.

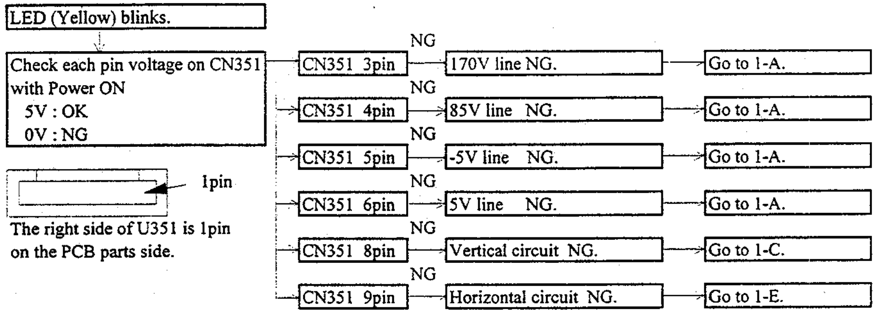
1. No Display


Is the AC Power Cord properly connected? Display turned ON?
NO
Connect AC Power Cord. Turn ON the display.
YES
Signal Cable properly connected? Computer switched ON?
NO
Connect Signal Cable. Turn ON the computer.
YES
When display turned ON with signal input, ENTER LED turns to Green and raster appears.
NO
LED does not light.
Go to 1-A.
NO
LED (Yellow) blinks.
Go to 1-B.
NO
LED (Green) lights but no raster.
Go to 1-D.
NO
LED (Yellow) remains lighting.
Is PowerManager set? Check the signal frequency is within the specification range.
YES
YES
The display shows an error massege.
Check the signal frequency is within the specification range.
NO
YES
The display shows no signal detected message.
Check U101, U104, U352.
NO
Either the BNC input or the D-SUB input has no display.
YES
Check U101 18pin the BNC input 0V the D-SUB input 5V
OK
Check U101.
NG
Check U351, U352.
NO
OK
Check cathode wave (Wave A).
Check CRT & CRT socket. Raise brightness & contrast.
NG
NG
Check waves on U201 18, 20, 23pin (Wave B).
Check U101, U201, U203, U107.
OK
Check U202.
Wave A
40Vp-p
GND
Wave B
4.6V
2.0V
GND

1-A

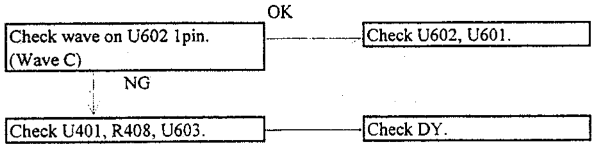

LED doesn't light.
T1 output terminal shorted?
Check on the following lines.
Check the following components
on each line.
Both edges of C903 88V line
D904, D913
Both edges of C926 85V line
U901, F903, PCB-VIDEO
Both edges of C901 120V line
D901, D902, F906
OK
Both edges of C904 16V line
D905
Check U604, U907, U904.
Both edges of C905 -16V line
D906
Check U908, U905.
Both edges of C906 8V line
D907, R901, ZD905, F907
F905
Check ICs connecting to
STAND-BY 5V line.
Both edges of C915 6V line
D912, F901, F904
Not shorted.
Go to 1-F.

1-B (Protector of microprocessor operates.)

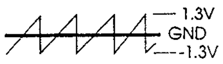

LED (Yellow) blinks.
Check each pin voltage on CN351
with Power ON
5V : OK
0V : NG
1pin
The right side of U351 is 1pin
on the PCB parts side.
NG
CN351 3pin
170V line NG.
Go to 1-A.
NG
CN351 4pin
85V line NG.
Go to 1-A.
NG
CN351 5pin
-5V line NG.
Go to 1-A.
NG
CN351 6pin
5V line NG.
Go to 1-A.
NG
CN351 8pin
Vertical circuit NG.
Go to 1-C.
NG
CN351 9pin
Horizontal circuit NG.
Go to 1-E.

When canceling the protector, short CN351 1pin-2pin or the land for PCB-MAIN test mode.
After servicing, restore the shorted parts.

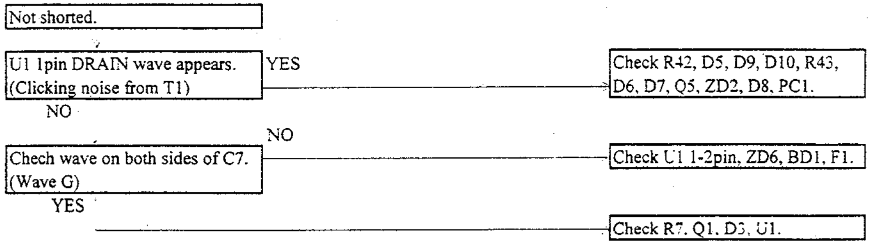
1-C Vertical circuit NG


Check wave on U602 1pin.
(Wave C)
OK
Check U602, U601.
NG
Check U401, R408, U603.
Check DY.

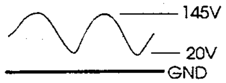
Wave C (at 80kHz/75Hz)



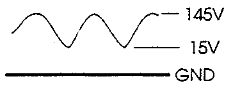
1-F


Not shorted.
U1 1pin DRAIN wave appears.
(Clicking noise from T1)
YES
Check R42, D5, D9, D10, R43,
D6, D7, Q5, ZD2, D8, PC1.
NO
NO
Chech wave on both sides of C7.
(Wave G)
Check U1 1-2pin, ZD6, BD1, F1.
YES
Check R7, Q1, D3, U1.

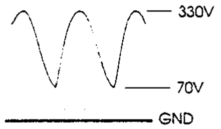
Wave G C7 (at AC100V/50Hz)


145V
20V
GND

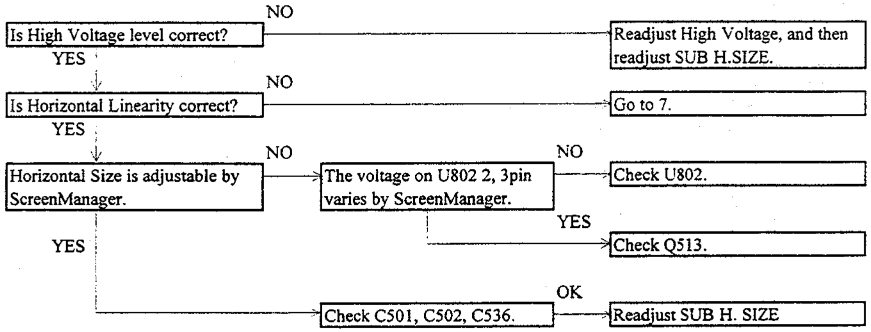
Wave G C7 (at AC100V/60Hz)


145V
15V
GND

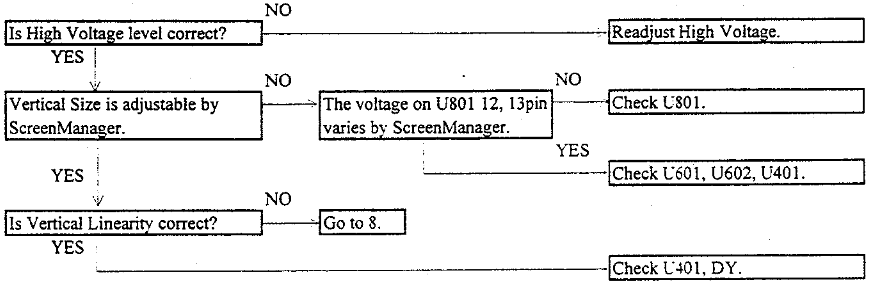
Wave G C7 (at AC230V/60Hz)


330V
70V
GND

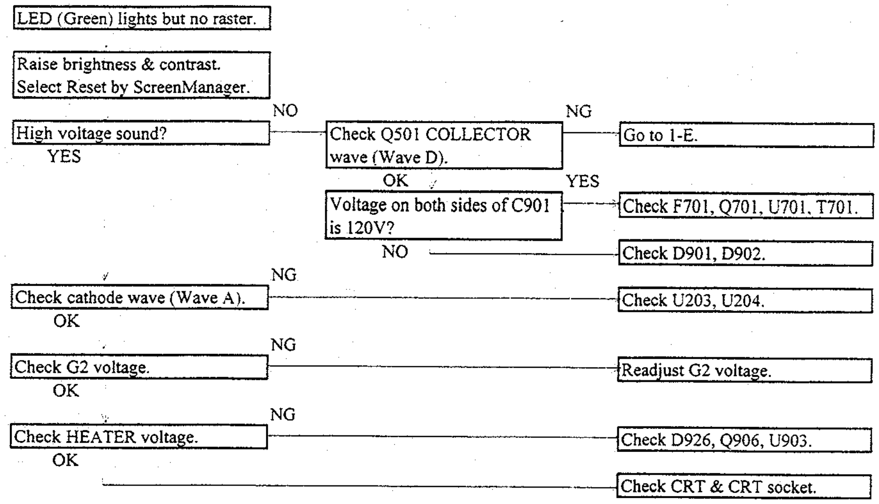
2. Horizontal Size is not correct.


Is High Voltage level correct?
NO
Readjust High Voltage, and then
readjust SUB H.SIZE.
YES
Is Horizontal Linearity correct?
NO
Go to 7.
YES
Horizontal Size is adjustable by
ScreenManager.
NO
The voltage on U802 2, 3pin
varies by ScreenManager.
NO
Check U802.
YES
Check Q513.
YES
Check C501, C502, C536.
OK
Readjust SUB H. SIZE

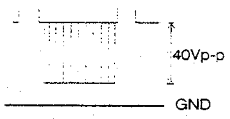
3. Vertical Size is not correct.


Is High Voltage level correct?
NO
Readjust High Voltage.
YES
Vertical Size is adjustable by
ScreenManager.
NO
The voltage on U801 12, 13pin
varies by ScreenManager.
NO
Check U801.
YES
Check U601, U602, U401.
YES
Is Vertical Linearity correct?
NO
Go to 8.
YES
Check U401, DY.

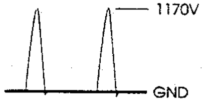
1-D


LED (Green) lights but no raster.
Raise brightness & contrast. Select Reset by ScreenManager.
High voltage sound?
NO
Check Q501 COLLECTOR wave (Wave D).
NG
Go to 1-E.
OK
YES
Voltage on both sides of C901 is 120V?
YES
Check F701, Q701, U701, T701.
NO
Check D901, D902.
NG
Check cathode wave (Wave A).
Check U203, U204.
OK
NG
Check G2 voltage.
Readjust G2 voltage.
OK
NG
Check HEATER voltage.
Check D926, Q906, U903.
OK
Check CRT & CRT socket.

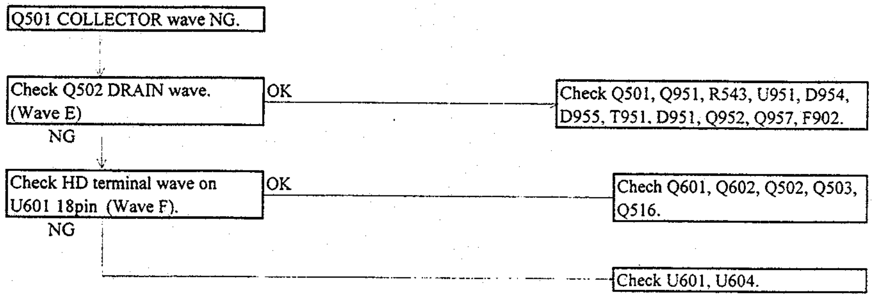
Wave A



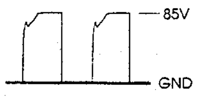
Wave D (at 80kHz/75Hz)



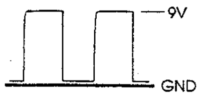
1-E


Q501 COLLECTOR wave NG.
Check Q502 DRAIN wave. (Wave E)
OK
Check Q501, Q951, R543, U951, D954, D955, T951, D951, Q952, Q957, F902.
NG
Check HD terminal wave on U601 18pin (Wave F).
OK
Chech Q601, Q602, Q502, Q503, Q516.
NG
Check U601, U604.

Wave E (at 80kHz/75Hz)



Wave F (at 80kHz/75Hz)



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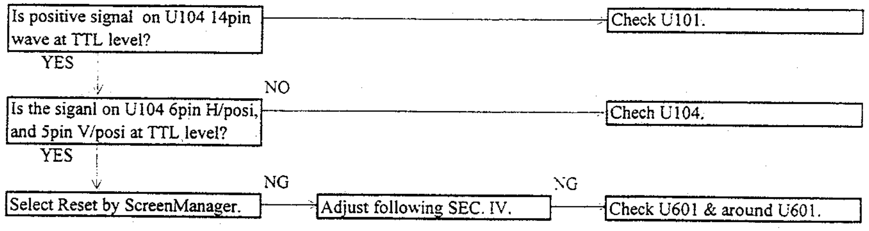
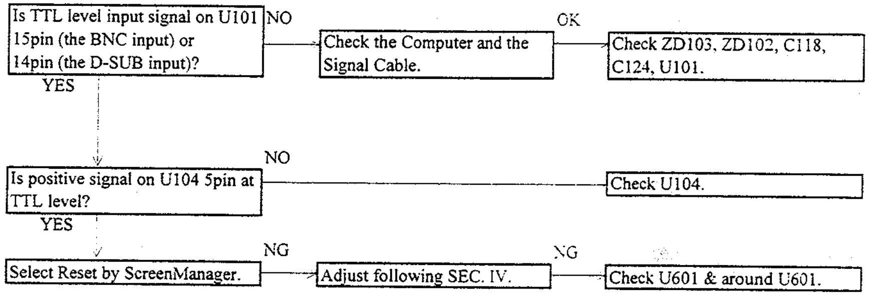
4. Horizontal/Vertical Sync is not correct.

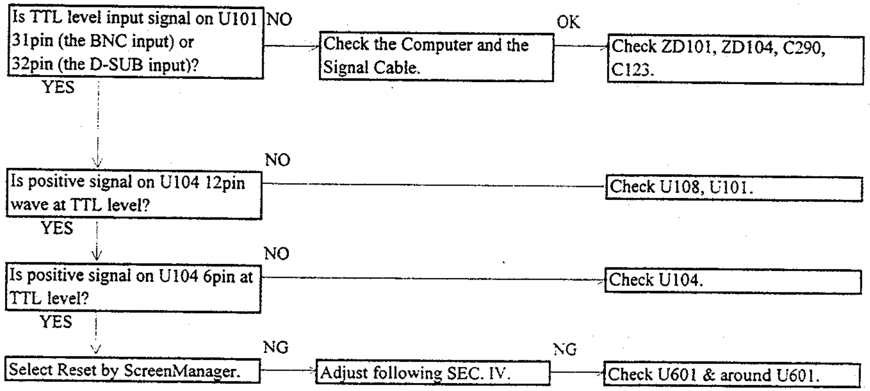
Sync is not correct in Sync on Green input.


Is positive signal on U104 14pin wave at TTL level?
Check U101.
YES
NO
Is the siganl on U104 6pin H/posi, and 5pin V/posi at TTL level?
Chech U104.
YES
NG
Select Reset by ScreenManager.
Adjust following SEC. IV.
NG
Check U601 & around U601.

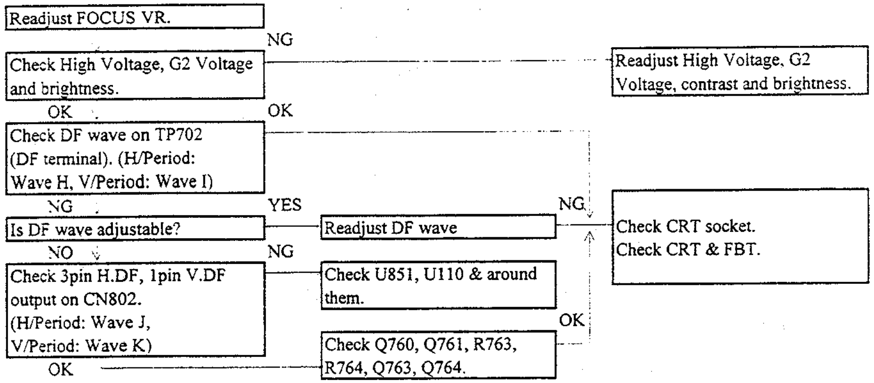
Vertical Sync is not correct in Separate Sync input.


Is TTL level input signal on U101 15pin (the BNC input) or 14pin (the D-SUB input)?
NO
Check the Computer and the Signal Cable.
OK
Check ZD103, ZD102, C118, C124, U101.
YES
NO
Is positive signal on U104 5pin at TTL level?
Check U104.
YES
NG
Select Reset by ScreenManager.
Adjust following SEC. IV.
NG
Check U601 & around U601.

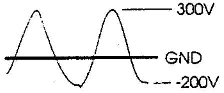
Hotizontal Sync is not correct in Separate Sync input.


Is TTL level input signal on U101 31pin (the BNC input) or 32pin (the D-SUB input)?
NO
Check the Computer and the Signal Cable.
OK
Check ZD101, ZD104, C290, C123.
YES
NO
Is positive signal on U104 12pin wave at TTL level?
Check U108, U101.
YES
NO
Is positive signal on U104 6pin at TTL level?
Check U104.
YES
NG
Select Reset by ScreenManager.
Adjust following SEC. IV.
NG
Check U601 & around U601.

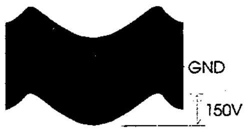
5. Focus is not correct.


Readjust FOCUS VR.
NG
Check High Voltage, G2 Voltage and brightness.
Readjust High Voltage, G2 Voltage, contrast and brightness.
OK
OK
Check DF wave on TP702 (DF terminal). (H/Period: Wave H, V/Period: Wave I)
NG
YES
NG
Is DF wave adjustable?
Readjust DF wave
Check CRT socket.
Check CRT & FBT.
NO
NG
Check 3pin H.DF, 1pin V.DF output on CN802. (H/Period: Wave J, V/Period: Wave K)
Check U851, U110 & around them.
OK
Check Q760, Q761, R763, R764, Q763, Q764.
OK

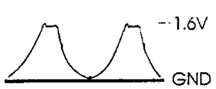
Wave H (at 80kHz/75Hz)


300V
GND
-200V

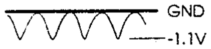
Wave I (at 80kHz/75Hz)



Wave J (at 80kHz/75Hz)

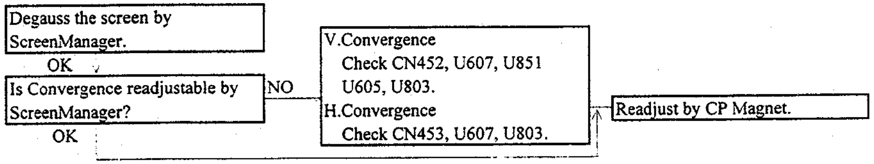


Wave K (at 80kHz/75Hz)

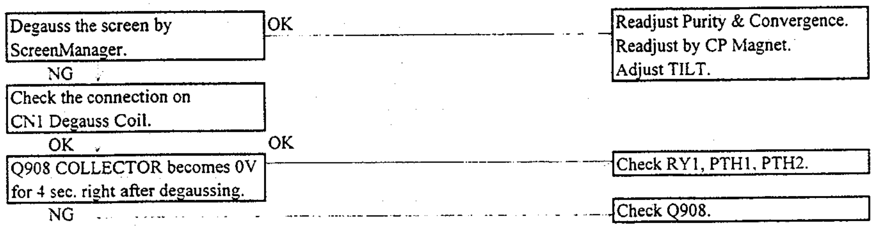


6. Convergence or Purity is not correct.

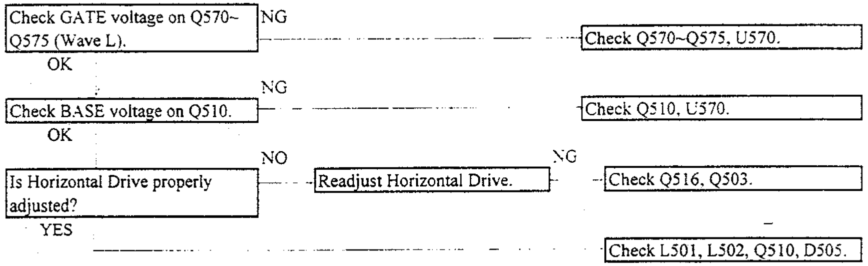
Convergence error


Degauss the screen by ScreenManager.
OK
Is Convergence readjustable by ScreenManager?
NO
V.Convergence
Check CN452, U607, U851 U605, U803.
H.Convergence
Check CN453, U607, U803.
Readjust by CP Magnet.
OK

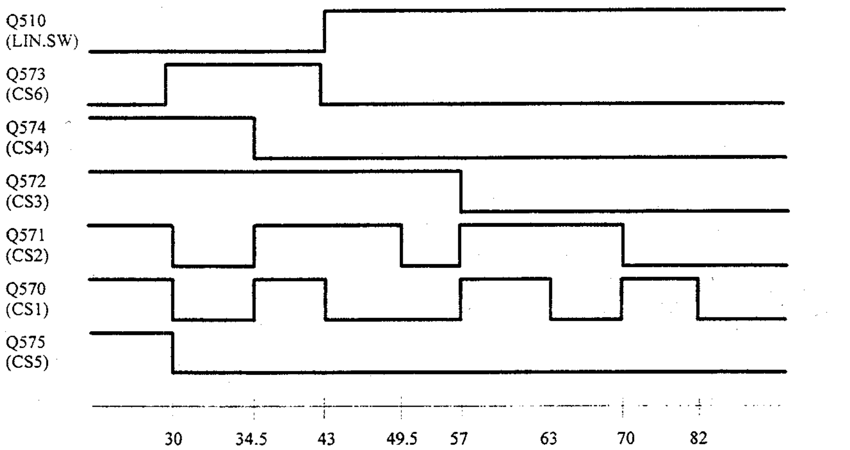
Purity error


Degauss the screen by ScreenManager.
OK
Readjust Purity & Convergence.
Readjust by CP Magnet.
Adjust TILT.
NG
Check the connection on CN1 Degauss Coil.
OK
OK
Q908 COLLECTOR becomes 0V for 4 sec. right after degaussing.
Check RY1, PTH1, PTH2.
NG
Check Q908.

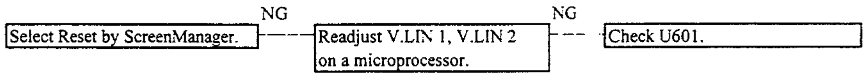
7. Horizontal Linearity is not correct


Check GATE voltage on Q570~Q575 (Wave L).
NG
Check Q570~Q575, U570.
OK
NG
Check BASE voltage on Q510.
Check Q510, U570.
OK
NO
NG
Is Horizontal Drive properly adjusted?
Readjust Horizontal Drive.
Check Q516, Q503.
YES
Check L501, L502, Q510, D505.

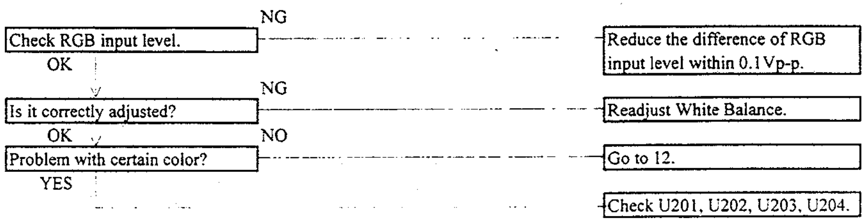
Wave L



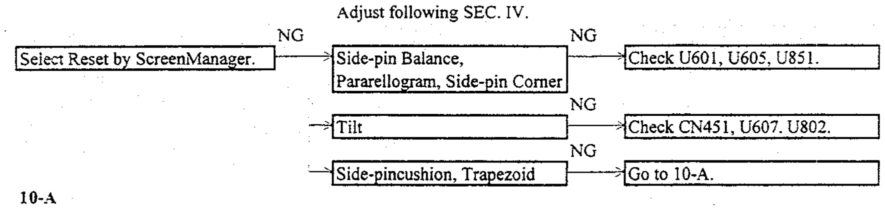
8. Vertical Linearity is not correct


NG
NG
Select Reset by ScreenManager.
Readjust V.LIN 1, V.LIN 2 on a microprocessor.
Check U601.

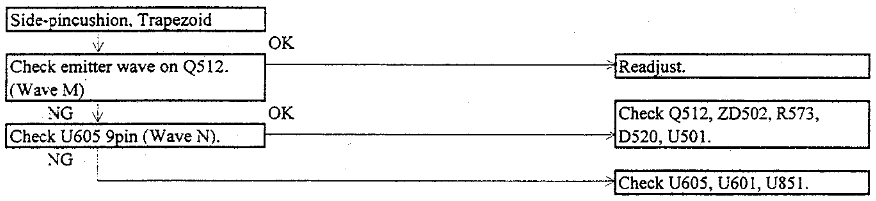
9. White Balance is not correct.


NG
Check RGB input level.
Reduce the difference of RGB input level within 0.1Vp-p.
OK
NG
Is it correctly adjusted?
Readjust White Balance.
OK
NO
Problem with certain color?
Go to 12.
YES
Check U201, U202, U203, U204.

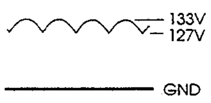
10. Distortion is not correct.


Adjust following SEC. IV.
Select Reset by ScreenManager.
NG
Side-pin Balance, Pararellogram, Side-pin Corner
NG
Check U601, U605, U851.
Tilt
NG
Check CN451, U607, U802.
Side-pincushion, Trapezoid
NG
Go to 10-A.

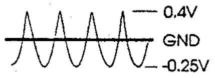
10-A


Side-pincushion, Trapezoid
Check emitter wave on Q512. (Wave M)
OK
Readjust.
NG
Check U605 9pin (Wave N).
OK
Check Q512, ZD502, R573, D520, U501.
NG
Check U605, U601, U851.

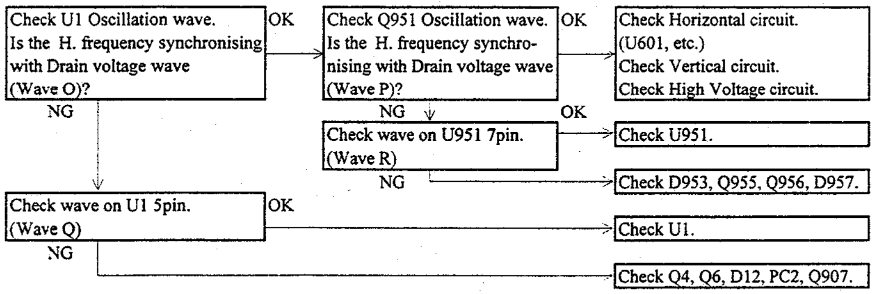
Wave M (at 80kHz/75Hz)


133V
127V
GND

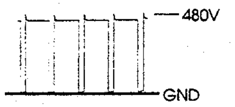
Wave N (at 80kHz/75Hz)


0.4V
GND
-0.25V

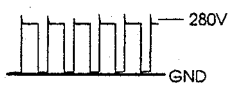
11. Noise appears on the screen.


Check U1 Oscillation wave. Is the H. frequency synchronising with Drain voltage wave (Wave O)?
OK
Check Q951 Oscillation wave. Is the H. frequency synchronising with Drain voltage wave (Wave P)?
OK
Check Horizontal circuit. (U601, etc.) Check Vertical circuit. Check High Voltage circuit.
NG
Check wave on U951 7pin. (Wave R)
OK
Check U951.
NG
Check D953, Q955, Q956, D957.
NG
Check wave on U1 5pin. (Wave Q)
OK
Check U1.
NG
Check Q4, Q6, D12, PC2, Q907.

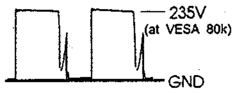
Wave O U1 1pin (at AC230V)



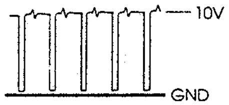
Wave O U1 1pin (at AC100V)



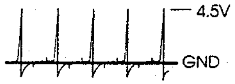
Wave P Q951 Drain


235V
(at VESA 80k)
GND

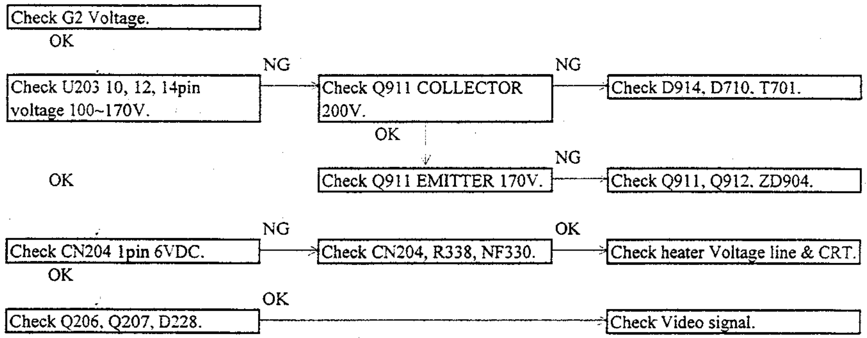
Wave Q U1 5pin



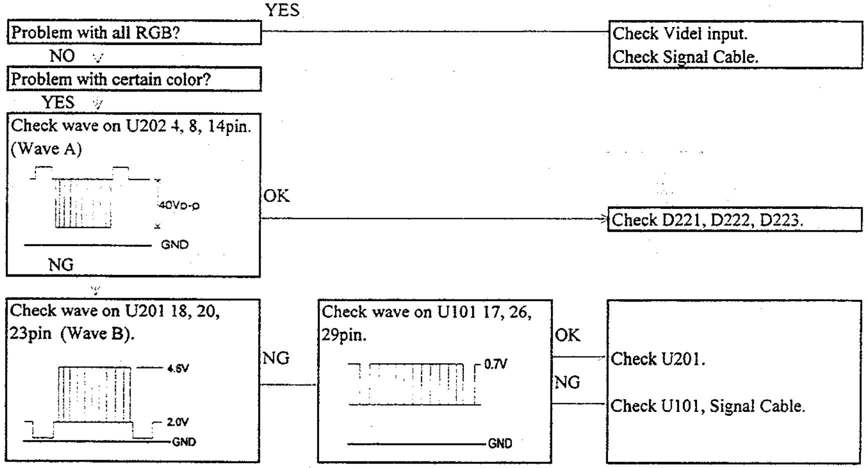
Wave R U951 7pin



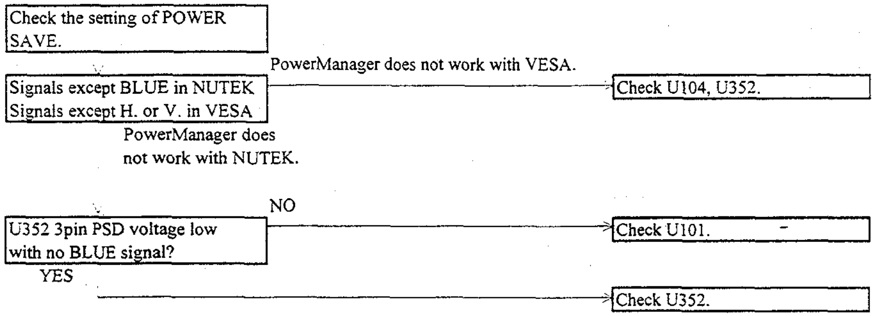
12. Raster appears but too bright or too dark.


Check G2 Voltage.
OK
Check U203 10, 12, 14pin voltage 100~170V.
NG
Check Q911 COLLECTOR 200V.
NG
Check D914, D710, T701.
OK
Check Q911 EMITTER 170V.
NG
Check Q911, Q912, ZD904.
OK
Check CN204 1pin 6VDC.
NG
Check CN204, R338, NF330.
OK
Check heater Voltage line & CRT.
OK
Check Q206, Q207, D228.
OK
Check Video signal.

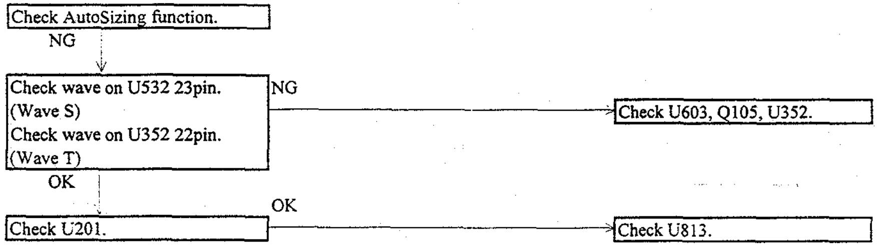
13. Overshoot, Smear


Problem with all RGB?
YES
Check Videl input. Check Signal Cable.
NO
Problem with certain color?
YES
Check wave on U202 4, 8, 14pin. (Wave A)
40Vp-p
GND
OK
Check D221, D222, D223.
NG
Check wave on U201 18, 20, 23pin (Wave B).
4.5V
2.0V
GND
NG
Check wave on U101 17, 26, 29pin.
0.7V
GND
OK
Check U201.
NG
Check U101, Signal Cable.

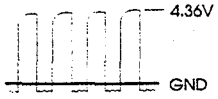
14. PowerManager does not work.


Check the setting of POWER SAVE.
PowerManager does not work with VESA.
Signals except BLUE in NUTEK
Signals except H. or V. in VESA
Check U104, U352.
PowerManager does not work with NUTEK.
NO
U352 3pin PSD voltage low with no BLUE signal?
Check U101.
YES
Check U352.

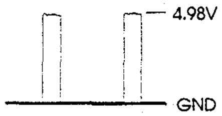
15. AutoSizing Function does not work.


Check AutoSizing function.
NG
Check wave on U532 23pin. (Wave S)
Check wave on U352 22pin. (Wave T)
NG
Check U603, Q105, U352.
OK
Check U201.
OK
Check U813.

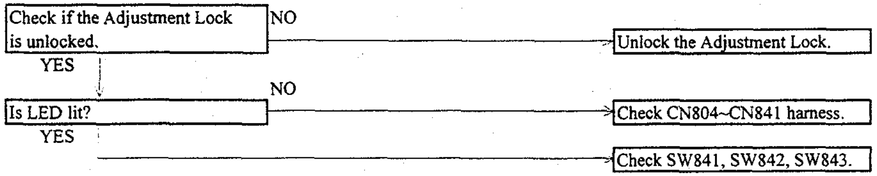
Wave S (at 91kHz/85Hz)



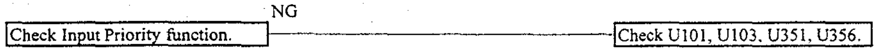
Wave T (at 91kHz/85Hz)



16. Adjustment Button does not work.


Check if the Adjustment Lock is unlocked.
NO
Unlock the Adjustment Lock.
YES
NO
Is LED lit?
Check CN804~CN841 harness.
YES
Check SW841, SW842, SW843.

17. Input Priority Function does not work.


NG
Check Input Priority function.
Check U101, U103, U351, U356.

SECTION VI : APPENDICES

Parts List for MA-1785

X mark : X-ray radiation related parts
S mark : Safety related parts
# mark : Exclusive parts for the stated destination
OR : Substitute for the parts above

1	ASS'Y MAIN UNIT	05U02431A1	....	Page 2
	PCB-MAIN	---	....	Page 2
	PCB-T EFC	05U02409A1	....	Page 16
	PCB-T CS	05U02412A1	....	Page 16
	PCB-T CRT	05U02413A1	....	Page 18
2	ASS'Y VIDEO UNIT	05U02432A1	....	Page 19
	PCB-VIDEO	---	....	Page 19
3	PCB-T SW	05T01182A1	....	Page 28
4	PCB-T ANT	05U02417A1	....	Page 28
5	OTHERS		....	Page 29
6	ASSEMBLED PARTS		....	Page 30

Electric Diagram

* BLOCK DIAGRAM
* CONNECTION DIAGRAM
* WIRING DIAGRAM
* SCHEMATIC DIAGRAM for DEFLECTION block on PCB-MAIN
* SCHEMATIC DIAGRAM for ANALOGUE CONTROL block on PCB-MAIN
* SCHEMATIC DIAGRAM for POWER block on PCB-MAIN
* SCHEMATIC DIAGRAM for PCB-VIDEO
* CIRCUIT DIAGRAM for PCB-EFC
* CIRCUIT DIAGRAM for PCB-CS
* SCHEMATIC DIAGRAM for PCB-CRT
* SCHEMATIC DIAGRAM for PCB-SW

PCB Pattern

* PCB-MAIN
* PCB-VIDEO
* PCB-EFC
* PCB-CS
* PCB-CRT
* PCB-SW

1. ASS'Y MAIN UNIT

***** PCB-MAIN *****

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
S	BD1	00N25196A4	D-BRIDGE	RBV-406	1	F-5
S	C1	0RT89105MF	C-PLASTIC	PA105-C	1	A-5
S	C1	0RQ25105MS	C-PLASTIC	ECQ-U2A 105MVA	OR	A-5
S	C3	00K58102KB	C-CERAMIC	DE7090 B 102K VA1	1	A-4
S	C4	00K58102KB	C-CERAMIC	DE7090 B 102K VA1	1	A-5
S	C5	00K58471KB	C-CERAMIC	DE7090 B 471K VA1	1	B-5
S	C6	00K58471KB	C-CERAMIC	DE7090 B 471K VA1	1	B-5
	C7	0XP56155KF	C-PLASTIC	ECQ-E 6155K FB	1	D-5
	C8	0XP56104KF	C-PLASTIC	ECQ-E 6104K FB	1	E-5
	C9	0ZP45471KR	C-CERAMIC	DE0705-959 (H)R 471K 1KV TP	1	D-5
	C10	0ZP45471KR	C-CERAMIC	DE0705-959 (H)R 471K 1KV TP	1	E-5
	C12	0KK86102JC	CP-C-CERAMIC	GRM40 50V CH 102J PT	1	C-5
	C14	0KK90333KB	CP-C-CERAMIC	GRM40 50V B 333K PT	1	C-5
	C15	0GQ37100MT	C-EL	MA 25V 10MF-M TP 5X5	1	B-5
	C16	0KK86471JC	CP-C-CERAMIC	GRM40 50V CH 471J PT	1	B-5
	C17	0GT81220MT	C-EL	MT 25V 22MF-M TP 6.3X5	1	C-5
	C18	0QT91220MT	C-EL	YXA 200V 22MF-M TP 10X20	1	B-5
	C19	0GT91471MT	C-EL	YXA 25V 470MF-M TP 10X12.5	1	B-5
	C20	0GT91221MT	C-EL	YXA 25V 220MF-M TP 8X11.5	1	B-5
	C21	00K58222MF	C-CERAMIC	DE7100 F 222M VA1	1	F-4
	C23	0KK86330JC	CP-C-CERAMIC	GRM40 50V CH 330J PT	1	B-5
	C24	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	B-5
	C28	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT	1	D-5
	C401	0ET51102MT	C-EL	PS 16V 1000MF-M TP 10X20	1	E-2
	C402	0ET51102MT	C-EL	PS 16V 1000MF-M TP 10X20	1	E-3
	C403	0KQ45101MT	C-EL	KMF 50V 100MF-M TP 8X11.5	1	E-3
	C404	0NT40274JT	C-PLASTIC	ECQ-V1 274J M3 (TP)	1	F-3
	C406	0WH81472KB	C-CERAMIC	DD12-959 B 472K 500V TP	1	E-2
	C407	0KK90473KB	CP-C-CERAMIC	GRM40 50V B 473K PT	1	F-3
	C451	0GT91470MT	C-EL	YXA 25V 47MF-M TP 5X11	1	F-1
	C452	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-1
	C453	0GT91470MT	C-EL	YXA 25V 47MF-M TP 5X11	1	F-1
	C454	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-1
	C455	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	F-1
	C456	0KK90102KB	CP-C-CERAMIC	GRM40 50V B 102K PT	1	D-1
	C457	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	F-1
	C458	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-1
	C459	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-1
	C460	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C461	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-1
	C462	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-1
	C463	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	F-1
	C501	07T42152JF	C-PLASTIC	DKR(391) 1800V 152J SRT (MA-1785)	1	C-1
	C501	07T42202JF	C-PLASTIC	DKR(391) 1800V 202J SRT (MA-1791)	1	C-1
	C502	07T42122JF	C-PLASTIC	DKR(391) 1800V 122J SRT (MA-1785)	1	C-1
	C502	07T42182JF	C-PLASTIC	DKR(391) 1800V 182J SRT (MA-1791)	1	C-1
	C503	0ZP45471KR	C-CERAMIC	DE0705-959 (H)R 471K 1KV TP	1	E-1
	C504	0NT91101MT	C-EL	YXA 100V .100MF-M TP 10X20	1	E-1
	C505	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-1
	C512	0UT47623JF	C-PLASTIC	DHSM 400V 623J SRT (MA-1785)	1	C-1
	C512	0UT47823JF	C-PLASTIC	DHSM 400V 823J SRT (MA-1791)	1	C-1
	C513	0UT47623JF	C-PLASTIC	DHSM 400V 623J SRT (MA-1785)	1	D-1
	C513	0UT47823JF	C-PLASTIC	DHSM 400V 823J SRT (MA-1791)	1	D-1
	C514	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-1
	C516	0UT47623JF	C-PLASTIC	DHSM 400V 623J SRT (MA-1785)	1	D-1
	C516	0UT47823JF	C-PLASTIC	DHSM 400V 823J SRT (MA-1791)	1	D-1
	C521	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-2
	C522	0GT50561MP	C-EL	PJ 25V 560MF-M 10X25	1	C-2
	C523	0GT50561MP	C-EL	PJ 25V 560MF-M 10X25	1	C-2
	C524	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-2

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C525	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	D-2
	C526	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-3
	C527	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	C-2
	C528	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	B-2
	C531	0KQ16104J1	C-PLASTIC	ECQ-V1H 104J L3 (TP)	1	C-2
	C536	07T42122JF	C-PLASTIC	DKR(391) 1800V 122J SRT (MA-1785)	1	C-1
	C536	07T42182JF	C-PLASTIC	DKR(391) 1800V 182J SRT (MA-1791)	1	C-1
	C545	0KK86471JC	CP-C-CERAMIC	GRM40 50V CH 471J PT	1	E-4
	C546	0QT91220MT	C-EL	YXA 200V 22MF-M TP 10X20 (MA-1785)	1	F-4
	C546	0QT91100MT	C-EL	YXA 200V 10MF-M TP 10X12.5 (MA-1791	1	F-4
	C547	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-3
	C548	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	F-4
	C549	0NP56105JF	C-PLASTIC	ECQ-E 1105J FB	1	E-4
	C601	0CT91222MT	C-EL	YXA 10V 2200MF-M TP 10X20	1	E-1
	C602	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-1
	C603	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT	1	F-2
	C604	0IT91220MT	C-EL	YXA 35V 22MF-M TP 5X11	1	F-1
	C605	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C606	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C607	0IP764R7MT	C-EL	KME-BP 35V VB 4.7MF-M TP 5X11	1	F-1
	C608	0KK86102JC	CP-C-CERAMIC	GRM40 50V CH 102J PT	1	F-2
	C609	0KQ352R2MT	C-EL	VZ 50V 2.2MF-M TP 5X11	1	F-1
	C610	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C611	0KK86471JC	CP-C-CERAMIC	GRM40 50V CH 471J PT	1	F-2
	C612	0KQ16104J1	C-PLASTIC	ECQ-V1H 104J L3 (TP)	1	F-1
	C613	0KK86102JC	CP-C-CERAMIC	GRM40 50V CH 102J PT	1	F-1
	C614	0KQ16334J1	C-PLASTIC	ECQ-V1H 334J L3 (TP)	1	F-2
	C615	0AT81470MT	C-EL	MT 6.3V 47MF-M TP 5X5	1	F-2
	C616	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C617	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C618	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C619	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C620	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C621	0KQ352R2MT	C-EL	VZ 50V 2.2MF-M TP 5X11	1	F-2
	C622	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	F-2
	C623	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	F-2
	C624	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	F-2
	C625	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	F-2
	C626	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	E-2
	C627	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-2
	C628	0IP76100MT	C-EL	KME-BP 35V VB 10MF-M TP 5X11	1	F-2
	C629	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C630	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C632	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	F-2
	C634	0KQ351R0MT	C-EL	VZ 50V 1.0MF-M TP 5X11	1	E-1
	C635	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	E-1
	C636	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	E-1
	C637	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C638	0KK90333KB	CP-C-CERAMIC	GRM40 50V B 333K PT	1	F-2
	C639	0CQ35471MT	C-EL	VZ 10V 470MF-M TP 6.3X11	1	F-2
	C651	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	F-2
	C652	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-3
	C653	0KP761R0MT	C-EL	KME-BP 50V VB 1MF-M TP 5X11	1	F-3
	C654	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-3
	C655	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-3
	C656	0IT91220MT	C-EL	YXA 35V 22MF-M TP 5X11	1	E-3
	C657	0IP76100MT	C-EL	KME-BP 35V VB 10MF-M TP 5X11	1	F-4
	C658	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-4
	C659	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-4
	C661	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-3
	C662	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-3
	C663	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-3
	C664	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	E-3
	C681	0KK86821JC	CP-C-CERAMIC	GRM40 50V CH 821J PT	1	A-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C683	0KK86471JC	CP-C-CERAMIC	GRM40 50V CH 471J PT	1	E-1
	C684	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT	1	A-2
	C685	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT	1	A-1
	C686	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT	1	A-1
	C687	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	A-1
	C688	0IP76100MT	C-EL	KME-BP 35V VB 10MF-M TP 5X11	1	F-3
	C689	0ET91470MT	C-EL	YXA 16V 47MF-M TP 5X11	1	556~SHIELD-M
	C702	0ZP42472KR	C-CERAMIC	DE1710 (H)R 472K 1KV	1	B-3
	C703	0RP56395KF	C-PLASTIC	ECQ-E 2395K FB	1	B-2
	C704	07T42102JF	C-PLASTIC	DKR(391) 1800V 102J SRT	1	B-2
	C706	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	A-1
	C707	0RP56104KF	C-PLASTIC	ECQ-E 2104K FB	1	B-1
	C708	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	B-3
	C709	0RP56104KF	C-PLASTIC	ECQ-E 2104K FB	1	A-1
	C710	0KT414R7M2	C-EL	KRL 50V 4.7MF-M TP 5X7	1	B-3
	C711	0RT91100MT	C-EL	YXA 250V 10MF-M TP 10X16	1	A-3
	C712	0AQ35221MT	C-EL	VZ 6.3V 220MF-M TP 5X11	1	B-2
	C713	0ZP42472KR	C-CERAMIC	DE1710 (H)R 472K 1KV	1	B-3
	C732	0NG77103JF	C-PLASTIC	DTW 100V 103J SRT	1	B-1
	C733	0KT911R0MT	C-EL	YXA 50V 1MF-M TP 5X11	1	B-1
	C735	0PQ354R7MT	C-EL	VZ 160V 4.7MF-M TP 6.3X11 (MA-1785)	1	A-3
	C760	0ET91331MT	C-EL	YXA 16V 330MF-M TP 8X11.5	1	A-4
	C761	0NQ45100MT	C-EL	KMF 100V 10MF-M TP 6.3X11	1	A-4
	C762	0NP56105JF	C-PLASTIC	ECQ-E 1105J FB	1	A-4
	C763	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	A-2
	C764	0KQ16104J1	C-PLASTIC	ECQ-V1H 104J L3 (TP)	1	A-4
	C765	0ZT79270JM	C-CERAMIC	DE5075-979 SL 270J 1KV TP	1	A-4
	C766	02P42221KR	C-CERAMIC	DE0707 (H)R 221K 2KV	1	A-3
	C768	0ZL81103ZE	C-CERAMIC	DE1510-1 E 103Z 1KV (SRT)	1	A-3
	C780	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	A-3
	C781	02P43471KR	C-CERAMIC	DE0907-1 (H)R 471K 2KV SRT	1	A-3
	C782	02L81103ZF	C-CERAMIC	DE1510-1 F 103Z 2KV (SRT)	1	A-3
	C802	0KK86271JC	CP-C-CERAMIC	GRM40 50V CH 271J PT	1	E-2
	C803	0KK86271JC	CP-C-CERAMIC	GRM40 50V CH 271J PT	1	F-4
	C804	0KK86271JC	CP-C-CERAMIC	GRM40 50V CH 271J PT	1	F-3
	C805	0KK86271JC	CP-C-CERAMIC	GRM40 50V CH 271J PT	1	F-4
	C806	0KK86271JC	CP-C-CERAMIC	GRM40 50V CH 271J PT	1	F-4
	C807	0AT91471MT	C-EL	YXA 6.3V 470MF-M TP 6.3X11	1	F-4
	C808	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-4
	C809	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	F-2
	C810	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-1
	C811	0EQ45470MT	C-EL	KMF 16V 47MF-M TP 5X11	1	E-2
	C812	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-2
	C813	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-1
	C814	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	E-1
	C816	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	D-1
	C901	0PP25681M1	C-EL	KMH 160V 680MF-M 22X45	1	B-3
	C903	0NT50681MP	C-EL	PJ 100V 680MF-M 18X40	1	B-4
	C904	0GT50392MP	C-EL	PJ 25V 3900MF-M 16X40	1	D-4
	C905	0GT50392MP	C-EL	PJ 25V 3900MF-M 16X40	1	C-4
	C906	0ET50822MP	C-EL	PJ 16V 8200MF-M 18X40	1	B-4
	C908	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	D-2
	C909	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	B-4
	C910	0ET37101MT	C-EL	PV 16V 100MF-M TP 6.3X11	1	A-4
	C911	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	D-2
	C912	0IP76100MT	C-EL	KME-BP 35V VB 10MF-M TP 5X11	1	B-4
	C914	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	D-4
	C915	0ET50222MP	C-EL	PJ 16V 2200MF-M 12.5X31.5	1	D-4
	C916	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	B-4
	C917	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	B-4
	C919	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	D-4
	C920	0EQ45101MT	C-EL	KMF 16V 100MF-M TP 6.3X11	1	D-4
	C921	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	D-4
	C922	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	E-4

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C923	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	E-4
	C924	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	A-3
	C925	0QT91220MT	C-EL	YXA 200V 22MF-M TP 10X20	1	A-3
	C926	0NT91470MT	C-EL	YXA 100V 47MF-M TP 10X12.5	1	B-3
	C927	0NP56224JF	C-PLASTIC	ECQ-E 1224J FB	1	B-4
	C928	0ZL49000ZA	CP-JP	RK73Z2ATD	1	A-4
	C929	0GP47681M1	C-EL	SXE 25V 680MF-M MC 10X30	1	D-2
	C930	0GP47681M1	C-EL	SXE 25V 680MF-M MC 10X30	1	D-2
	C931	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	D-4
	C933	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	E-2
	C934	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	E-2
	C939	0ZP45221KR	C-CERAMIC	DE0705-959 (H)R 221K 1KV TP	1	C-4
	C940	0RT91R47MT	C-EL	YXA 250V 0.47MF-M TP 6.3X11	1	A-3
	C941	0KT91100MT	C-EL	YXA 50V 10MF-M TP 5X11	1	A-4
	C951	0QQ45101MP	C-EL	KMF 200V 100MF-M MC 16X31.5	1	E-4
	C952	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	C-3
	C953	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	C-3
	C954	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	C-3
	C955	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	C-3
	C956	0KK86102JC	CP-C-CERAMIC	GRM40 50V CH 102J PT	1	C-3
	C957	0KQ35100MT	C-EL	VZ 50V 10MF-M TP 5X11	1	C-3
	C958	0WT67101JT	CP-C-CERAMIC	GRM42-6 CH 101J 500PT	1	D-3
	C959	0RP56104KF	C-PLASTIC	ECQ-E 2104K FB	1	D-4
	C960	0KK90392KB	CP-C-CERAMIC	GRM40 50V B 392K PT	1	C-3
	C961	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	C-3
	C962	0XT18472KB	CP-C-CERAMIC	GHM1530 B 472K 630	1	D-3
	C963	0WT67101JT	CP-C-CERAMIC	GRM42-6 CH 101J 500PT	1	D-3
	C966	0KK86220JC	CP-C-CERAMIC	GRM40 50V CH 220J PT	1	D-3
	C967	0XT29221KR	CP-C-CERAMIC	GHM1030 R 221K 630	1	D-3
	C968	0XT29221KR	CP-C-CERAMIC	GHM1030 R 221K 630	1	D-3
S	CN1	00F40916A1	CN	B2P3-VH	1	D-5
	CN451	00J40612A1	CN	B2B-PH-K-R (RED)	1	D-1
	CN452	00J40630A1	CN	B2B-PH-K-Y (YELLOW)	1	D-1
	CN453	00J40642A1	CN	B2B-PH-K-S	1	D-1
	CN501	00F40019A3	CN	YP115S-4P	1	D-1
	CN503	00J40618A1	CN	B2B-PH-K-E (BLUE)	1	C-1
	CN504	05V03321A1	ASSY CN	ASSY CN-CS	1	C-2
	CN505	00J40190A2	CN	B3B-EH	1	A-1
	CN701	00J40642A8	CN	B9B-PH-K-S	1	A-4
	CN702	05V03473A1	ASSY CN	ASSY CN G1 (MA-1785)	1	A-3
	CN705	05V03345B1	ASSY HARNESS	ASSY CN-E MA-1790	1	A-1
	CN801	09F40147A5	CN	BTFN14S-3SB7	1	A-2
	CN802	09F40147A5	CN	BTFN14S-3SB7	1	A-1
	CN803	09F40147A5	CN	BTFN14S-3SB7	1	A-3
	CN804	00J40642A6	CN	B7B-PH-K-S	1	D-1
	D1	08F25474T1	DIODE	1NU41 (TPA2)	1	E-5
	D3	00H25737C1	CP-D	DAN202K (T146)	1	B-5
	D4	00H25737C1	CP-D	DAN202K (T146)	1	C-5
	D5	08R25538T1	DIODE	11EFS4 TA1B2	1	C-5
	D6	09F25141T1	DIODE	UF4007 G23	1	C-5
	D7	09F25141T1	DIODE	UF4007 G23	1	B-5
	D8	00H25737C1	CP-D	DAN202K (T146)	1	B-5
	D9	09F25230C1	CP-D	SB05-05CP-TB	1	B-5
	D10	09F25230C1	CP-D	SB05-05CP-TB	1	B-5
	D11	08H25035C1	CP-D	DAN217 (T146)	1	B-5
	D12	00H25737C1	CP-D	DAN202K (T146)	1	B-5
	D401	09H25016A1	CP-D	1SR159-200 TE25	1	E-3
	D402	00H25737C1	CP-D	DAN202K (T146)	1	E-3
	D501	09F25021A1	DIODE	FMQ-G5FS	1	A-1
	D502	08R25013F1	DIODE	ERB83-004L6	1	B-1
	D505	09H25016A1	CP-D	1SR159-200 TE25	1	D-1
	D506	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D507	08H25035C1	CP-D	DAN217 (T146)	1	D-1
	D509	08H25035C1	CP-D	DAN217 (T146)	1	D-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	D510	09H25016A1	CP-D	1SR159-200 TE25	1	C-2
	D511	09H25016A1	CP-D	1SR159-200 TE25	1	C-2
	D512	08H25119A1	CP-D	HSM83-TL	1	C-2
	D513	08H25119A1	CP-D	HSM83-TL	1	C-2
	D516	00H25737C1	CP-D	DAN202K (T146)	1	C-2
	D517	08H25035C1	CP-D	DAN217 (T146)	1	C-2
	D518	09H25016A1	CP-D	1SR159-200 TE25	1	E-1
	D519	08H25119A1	CP-D	HSM83-TL	1	F-4
	D520	00H25737C1	CP-D	DAN202K (T146)	1	D-3
	D526	09H25016A1	CP-D	1SR159-200 TE25	1	C-2
	D527	09H25016A1	CP-D	1SR159-200 TE25	1	C-2
	D528	00H25737C1	CP-D	DAN202K (T146)	1	B-2
	D529	08N25358T2	DIODE	1DL42A (N,TPA3)	1	C-2
	D552	09H25016A1	CP-D	1SR159-200 TE25	1	A-4
	D601	00H25737C1	CP-D	DAN202K (T146)	1	F-1
	D603	00H25737C1	CP-D	DAN202K (T146)	1	F-2
	D605	00H25737C1	CP-D	DAN202K (T146)	1	F-1
	D606	00H25737C1	CP-D	DAN202K (T146)	1	F-2
	D682	00H25737C1	CP-D	DAN202K (T146)	1	A-2
	D683	00H25737C1	CP-D	DAN202K (T146)	1	A-2
	D702	08R25538T1	DIODE	11EFS4 TA1B2	1	B-2
	D703	08R25538T1	DIODE	11EFS4 TA1B2	1	B-2
	D704	08R25566A2	DIODE	UF3ML-6572 G22	1	B-2
	D705	08R25566A2	DIODE	UF3ML-6572 G22	1	B-2
	D706	08H25119A1	CP-D	HSM83-TL	1	A-1
	D707	08N25238T1	DIODE	05NU42 (TPA3)	1	B-2
	D708	08N25238T1	DIODE	05NU42 (TPA3)	1	B-2
	D710	08R25538T1	DIODE	11EFS4 TA1B2	1	A-3
	D711	08H25119A1	CP-D	HSM83-TL (MA-1785)	1	A-3
	D712	00H25737C1	CP-D	DAN202K (T146)	1	B-1
	D732	08H25035C1	CP-D	DAN217 (T146)	1	B-1
	D760	08H25119A1	CP-D	HSM83-TL	1	A-4
	D761	08H25035C1	CP-D	DAN217 (T146)	1	A-4
	D762	08H25119A1	CP-D	HSM83-TL	1	A-4
	D763	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D764	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D765	08H25119A1	CP-D	HSM83-TL	1	A-3
	D766	09H25016A1	CP-D	1SR159-200 TE25	1	A-1
	D901	08R25012F2	DIODE	RL4A LFT2 (015-302)	1	C-4
	D902	08R25012F2	DIODE	RL4A LFT2 (015-302)	1	C-4
	D904	08R25111F2	DIODE	31DF4-FC5	1	B-4
	D905	08R25111F2	DIODE	31DF4-FC5	1	D-4
	D906	08R25111F2	DIODE	31DF4-FC5	1	D-4
	D907	09F25074F1	DIODE	RX3Z LF014-303	1	C-4
	D908	00H25737C1	CP-D	DAN202K (T146)	1	B-4
	D910	00H25737C1	CP-D	DAN202K (T146)	1	F-4
	D912	09F25074F1	DIODE	RX3Z LF014-303	1	D-4
	D913	08R25111F2	DIODE	31DF4-FC5	1	C-4
	D914	08H25119A1	CP-D	HSM83-TL	1	A-3
	D921	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D922	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D924	08H25119A1	CP-D	HSM83-TL	1	B-4
	D925	00H25737C1	CP-D	DAN202K (T146)	1	B-4
	D926	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D931	09H25016A1	CP-D	1SR159-200 TE25	1	E-4
	D932	09H25016A1	CP-D	1SR159-200 TE25	1	D-4
	D934	08H25119A1	CP-D	HSM83-TL	1	D-4
	D951	00H25737C1	CP-D	DAN202K (T146)	1	D-3
	D952	08H25035C1	CP-D	DAN217 (T146)	1	C-3
	D953	00H25737C1	CP-D	DAN202K (T146)	1	D-3
	D954	08R25378F2	DIODE	S2L60 4004P15	1	D-4
	D955	08R25378F2	DIODE	S2L60 4004P15	1	D-4
	D956	00R25170A2	DIODE	1R5GU41	1	D-3
	D957	00H25737C1	CP-D	DAN202K (T146)	1	D-4

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
S	F1	08N32018A8	FUSE	215005 250V 5A 5.2φ*20mm	1	A-5
S	F1	38N32018A8	FUSE	215005 250V 5A 5.2φ*20mm	OR	A-5
S	F2	08R32520T3	FUSE	473001 T-1 (125V 1.0A)	1	E-5
S	F2	38R32520T3	FUSE	473001 T-1 (125V 1.0A)	OR	E-5
S	F501	09F32331T9	FUSE	251001 T-52	1	C-2
S	F501	39F32331T9	FUSE	251001 T-52	OR	C-2
S	F701	08R32520T5	FUSE	473002 T-1	1	B-3
S	F701	38R32520T5	FUSE	473002 T-1	OR	B-3
S	F901	08R32520T4	FUSE	47301.5 T52	1	F-4
S	F901	38R32520T4	FUSE	47301.5 T52	OR	F-4
S	F902	09F32332T1	FUSE	2511.25 T-52	1	B-3
S	F902	39F32332T1	FUSE	2511.25 T-52	OR	B-3
S	F903	08R32520T4	FUSE	47301.5 T52	1	B-3
S	F903	38R32520T4	FUSE	47301.5 T52	OR	B-3
S	F904	08R32520T8	FUSE	47303.5 T-1	1	D-4
S	F904	38R32520T8	FUSE	47303.5 T-1	OR	D-4
S	F905	08R32520T7	FUSE	473003 T-1	1	C-4
S	F905	38R32520T7	FUSE	473003 T-1	OR	C-4
S	F906	08R32520T8	FUSE	47303.5 T-1	1	C-4
S	F906	38R32520T8	FUSE	47303.5 T-1	OR	C-4
S	F907	08R32520T4	FUSE	47301.5 T52	1	B-4
S	F907	38R32520T4	FUSE	47301.5 T52	OR	B-4
	FC1	08N51217T1	FUSE-HOLDER	PFC5000-0202	1	A-5
	FC2	08N51217T1	FUSE-HOLDER	PFC5000-0202	1	A-5
	J547	08F38765B1	R-CARBON	25ZT26	1	B-4
S	L1	05F16734A1	L-LINE-F	SS28V-R18190	1	A-5
	L4	09F36151A5	CP-L	BLM41P600SPBM00-03	1	D-5
S	L5	05F16753A8	L-LINE-F	PLY11A9012R0R02B1	1	A-5
	L501	05F16666A1	L-LINEAR	WLH-614 (MA-1785)	1	D-1
	L501	05F16651A1	L-LINEAR	WLH604 (MA-1791)	1	D-1
	L502	05F16666A1	L-LINEAR	WLH-614 (MA-1785)	1	D-1
	L502	05F16651A1	L-LINEAR	WLH604 (MA-1791)	1	D-1
	L503	05F16660A4	L-CHOKE	3610-10-820 (MA-1785)	1	D-2
	L503	05F16659A7	L-CHOKE	3610-10-330 (MA-1791)	1	D-2
	L505	00K11102K0	L-CHOKE	TSL1110-102KR31	1	D-2
	L506	00K11331K0	L-CHOKE	TSL1110-331KR55	1	D-2
	L512	09F36151A5	CP-L	BLM41P600SPBM00-03	1	C-1
	L513	09F36151A5	CP-L	BLM41P600SPBM00-03	1	C-1
	L514	09F36151A5	CP-L	BLM41P600SPBM00-03	1	C-1
	L515	09F36151A5	CP-L	BLM41P600SPBM00-03	1	L516 (B-1)
	L516	09F36151A5	CP-L	BLM41P600SPBM00-03	1	L515 (B-1)
	L701	05F16655A6	L-CHOKE	R622LY-6R8M	1	B-2
	L702	00S70220K0	L-CHOKE	R635LY-220K	1	B-2
	L703	09F50164T1	NF	BL02RN1-R62T2	1	B-2
	L704	05F16655A6	L-CHOKE	R622LY-6R8M	1	B-2
	L705	00L13220KT	L-AXIAL	LF5.0S 220 T26 K	1	A-1
	L901	00K11331K0	L-CHOKE	TSL1110-331KR55	1	E-2
	L901	00S70331K0	L-CHOKE	R635LY-331K	OR	E-2
S	PC1	08R28052A1	IC-PC	PS2561L1-1-V	1	B-4
S	PC2	09F28029A1	IC-PC	H11L1-TV	1	B-4
S	PTH1	09F29173A1	R-POSISTOR	PTH451A302BF9R0Q270	1	F-5
S	PTH2	09F29173A1	R-POSISTOR	PTH451A302BF9R0Q270	1	F-5
	Q1	0CH24002ZE	TR	2SC4002-E TP	1	E-5
	Q2	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-5
	Q3	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	C-5
	Q4	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-5
	Q5	0DF21073ZZ	TR	2SD1073	1	B-5
	Q6	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-5
	Q7	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	D-5
	Q8	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	D-5
	Q501	0CF25244NZ	TR	2SC5244-NU	1	B-1
	Q502	08F24508ZZ	TR-FET	2SK945	1	E-1
	Q503	0BF21340ZZ	TR	2SB1340	1	D-1
	(Q503)	38R49039A2	RADIATOR	OSH-1035-SPL	1	D-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	(Q503)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	D-1
	(Q503)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	D-1
	Q504	0CK43138ZZ	CP-TR	2SC3138 (TE85L)	1	D-1
	Q510	08H29186T2	CP-TR-DIGITAL	DTD143EK T-146	1	D-2
	Q511	0CH24002ZE	TR	2SC4002-E TP	1	C-3
	Q512	0DF21889ZZ	TR	2SD1889	1	D-3
	Q513	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-2
	Q516	0BF21340ZZ	TR	2SB1340	1	E-1
	Q601	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	F-2
	Q602	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	F-2
	Q681	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	E-1
	Q682	0CK43735ZZ	CP-TR	2SC3735 (T1B)	1	A-2
	Q683	0CK43735ZZ	CP-TR	2SC3735 (T1B)	1	A-2
	Q684	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	A-1
	Q701	09F24018A1	TR-FET	2SK2487	1	B-2
	Q730	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-1
	Q760	0DF22400AZ	TR	2SD2400A	1	A-4
	Q761	0BF21569AZ	TR	2SB1569A	1	A-4
	Q762	0CH22235ZZ	TR	2SC2235-O,Y (TPE6)	1	A-4
	Q763	05F22489A2	TR	2SC4630LS-MTO	1	A-3
	Q764	05F22489A2	TR	2SC4630LS-MTO	1	A-3
	Q901	08R24519A1	TR-FET	2SJ142	1	B-4
	Q902	0CK43138ZZ	CP-TR	2SC3138 (TE85L)	1	B-4
	Q903	00H29365T1	CP-TR-DIGITAL	DTC143EK T-146	1	B-3
	Q904	00H29365T1	CP-TR-DIGITAL	DTC143EK T-146	1	B-4
	Q906	00H29358T1	CP-TR-DIGITAL	DTC144EK T-146	1	A-4
	Q907	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-4
	Q908	08H29186T6	CP-TR-DIGITAL	DTD123YK T-146	1	E-4
	Q910	0CK43138ZZ	CP-TR	2SC3138 (TE85L)	1	B-4
	Q911	0CF23620ZZ	TR	2SC3620	1	A-3
	Q912	0CK44497ZZ	CP-TR	2SC4497-O(TE85L)	1	A-3
	Q951	09F24017A1	TR-FET	2SK2028-01MR	1	B-3
	(Q951)	38R49039A2	RADIATOR	OSH-1035-SPL	1	B-3
	(Q951)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	B-3
	(Q951)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	B-3
	Q952	00H29352T1	CP-TR-DIGITAL	DTA123EK T-146	1	D-3
	Q953	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	C-3
	Q955	08H29294T1	CP-TR	FMY6 T-148	1	D-3
	Q956	09F29133T1	CP-TR	IMX 2 T108	1	D-3
	Q957	00H29365T1	CP-TR-DIGITAL	DTC143EK T-146	1	D-3
	Q958	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	C-3
S	R1	0CS79474JT	R-METAL.GL	RCR50 T52 470K-J TP	1	A-5
	R2	0BL49224JA	CP-R-CARBON	RK73K2E 1/4W 220K-J TP(TD)	1	E-5
	R3	0BL49224JA	CP-R-CARBON	RK73K2E 1/4W 220K-J TP(TD)	1	E-5
	R4	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	F-5
	R5	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	F-5
	R6	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	F-5
	R7	0SM10273JR	R-FUSING	WF5N34S 27K-J	1	F-5
	R8	0FL09683JL	R-METAL.OX	RSS 3 L20 68K-J	1	E-5
	R9	0FL09683JL	R-METAL.OX	RSS 3 L20 68K-J	1	E-5
	R10	0FL09102JL	R-METAL.OX	RSS 3 L20 1.0K-J	1	E-5
	R11	0FL09102JL	R-METAL.OX	RSS 3 L20 1.0K-J	1	D-5
	R12	0ZL49332JA	CP-R-CARBON	RK73K2A 1/10W 3.3K-J TP(TD)	1	B-5
	R13	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	B-5
	R14	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-5
	R15	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD)	1	C-5
	R16	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	C-5
	R17	0ZL49681JA	CP-R-CARBON	RK73K2A 1/10W 680-J TP(TD)	1	C-5
	R18	0ZL49182JA	CP-R-CARBON	RK73K2A 1/10W 1.8K-J TP(TD)	1	C-5
	R19	0EL32R10JM	R-METAL.PLATE	BPR 28 2W 0.10-J STRAIGHT	1	D-5
	R21	0ZL49272JA	CP-R-CARBON	RK73K2A 1/10W 2.7K-J TP(TD)	1	B-5
	R22	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	B-5
	R23	0ZL49122JA	CP-R-CARBON	RK73K2A 1/10W 1.2K-J TP(TD)	1	C-5
	R24	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	B-5

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R25	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	B-5
	R27	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-5
	R28	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-5
	R29	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	B-5
	R30	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-5
	R31	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	B-5
	R33	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	B-5
	R34	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	B-5
	R35	0BL482213F	CP-R-CARBON	RK73H2E 1/4W 221K-F TP(TD)	1	E-5
	R36	0BL482213F	CP-R-CARBON	RK73H2E 1/4W 221K-F TP(TD)	1	E-5
	R37	0BL482213F	CP-R-CARBON	RK73H2E 1/4W 221K-F TP(TD)	1	E-5
	R38	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	– E-5
	R39	0ZL49680JA	CP-R-CARBON	RK73K2A 1/10W 68-J TP(TD)	1	C-5
	R40	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	C-5
	R42	0BS851R0JT	R-FUSING	RF26B2E 1/4W 1.0-J T	1	C-5
	R43	0BS85R82JT	R-FUSING	RF26B2E 1/4W 0.82-J T	1	C-5
	R401	0CL09R47JH	R-METAL.OX	RSSX 1/2W 0.47-J	1	E-2
	R402	0CL09R47JH	R-METAL.OX	RSSX 1/2W 0.47-J	1	E-3
	R403	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	E-2
	R404	0ZL481212F	CP-R-CARBON	RK73H2A 1/10W 12.1K-F TP(TD)	1	F-3
	R405	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	F-3
	R406	0EL09471JL	R-METAL.OX	RSS 2 L15 470-J	1	F-3
	R407	0EL091R2JL	R-METAL.OX	RSSX 2 L15 1.2-J	1	F-3
	R408	0BL081R0JL	R-FUSING	RF25SJ 1/4W 1.0-J L(L10)	1	F-2
	R409	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	E-3
	R410	0ZL49392JA	CP-R-CARBON	RK73K2A 1/10W 3.9K-J TP(TD)	1	E-3
	R451	0BL49120JA	CP-R-CARBON	RK73K2E 1/4W 12-J TP(TD)	1	F-1
	R452	0BL49120JA	CP-R-CARBON	RK73K2E 1/4W 12-J TP(TD)	1	F-1
	R453	0EL09181JL	R-METAL.OX	RSS 2 L15 180-J	1	F-1
	R454	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	F-1
	R456	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R457	0EL09151JL	R-METAL.OX	RSS 2 L15 150-J (MA-1785)	1	F-1
	R457	0EL09181JL	R-METAL.OX	RSS 2 L15 180-J (MA-1791)	1	F-1
	R460	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R461	0BL49120JA	CP-R-CARBON	RK73K2E 1/4W 12-J TP(TD) (MA-1785)	1	F-1
	R461	0BL49150JA	CP-R-CARBON	RK73K2E 1/4W 15-J TP(TD) (MA-1791)	1	F-1
	R462	0BL49150JA	CP-R-CARBON	RK73K2E 1/4W 15-J TP(TD)	1	F-1
	R463	0EL09101JL	R-METAL.OX	RSS 2 L15 100-J (MA-1785)	1	F-1
	R463	0EL09820JL	R-METAL.OX	RSS 2 L15 82-J (MA-1791)	1	F-1
	R466	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R467	0BL49150JA	CP-R-CARBON	RK73K2E 1/4W 15-J TP(TD)	1	F-1
	R468	0BL49100JA	CP-R-CARBON	RK73K2E 1/4W 10-J TP(TD)	1	F-1
	R469	0ZL482002F	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-1
	R470	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-1
	R471	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R472	0ZL481002F	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-4
	R473	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R474	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-2
	R475	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-3
	R476	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	F-3
	R478	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	F-3
	R479	0ZL49512JA	CP-R-CARBON	RK73K2A 1/10W 5.1K-J TP(TD)	1	F-3
	R480	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-3
	R501	0FL09R39JL	R-METAL.OX	RSSX 3 L20 0.39-J	1	B-1
	R502	0FL09R39JL	R-METAL.OX	RSSX 3 L20 0.39-J	1	C-1
	R503	0BL49100JA	CP-R-CARBON	RK73K2E 1/4W 10-J TP(TD)	1	B-1
	R504	0EL09272JL	R-METAL.OX	RSS 2 L15 2.7K-J	1	E-1
	R506	0EL09821JL	R-METAL.OX	RSS 2 L15 820-J (MA-1785)	1	D-1
	R506	0EL09681JL	R-METAL.OX	RSS 2 L15 680-J (MA-1791)	1	D-1
	R508	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	D-1
	R509	0ZL49154JA	CP-R-CARBON	RK73K2A 1/10W 150K-J TP(TD)	1	E-1
	R510	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	E-1
	R512	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	D-1
	R513	0FL09220JL	R-METAL.OX	RSS 3 L20 22-J	1	D-2

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R514	0FL09680JL	R-METAL.OX	RSS 3 L20 68-J	1	D-1
	R515	0BL49220JA	CP-R-CARBON	RK73K2E 1/4W 22-J TP(TD)	1	C-2
	R533	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	C-2
	R534	0ZL487151F	CP-R-CARBON	RK73H2A 1/10W 7.15K-F TP(TD)	1	C-3
	R535	0ZL492R2JA	CP-R-CARBON	RK73M2A 1/10W 2.2-J TP(TD)	1	C-2
	R536	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	D-3
	R537	0ZL489101F	CP-R-CARBON	RK73H2A 1/10W 9.1K-F TP(TD)	1	C-3
	R538	0EL098R2JL	R-METAL.OX	RSSX 2 L15 8.2-J	1	D-2
	R543	0CL043R3JT	R-CARBON	RD50SS T26 1/2W 3.3-J TP	1	C-2
	R544	0ZL49392JA	CP-R-CARBON	RK73K2A 1/10W 3.9K-J TP(TD)	1	C-2
	R545	0ZL49563JA	CP-R-CARBON	RK73K2A 1/10W 56K-J TP(TD) (MA-1785)	1	C-3
	R545	0ZL49393JA	CP-R-CARBON	RK73K2A 1/10W 39K-J TP(TD) (MA-1791)	1	C-3
	R546	0ZL49182JA	CP-R-CARBON	RK73K2A 1/10W 1.8K-J TP(TD)	1	C-2
	R547	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-2
	R549	0EL09R22JL	R-METAL.OX	RSSX 2 L15 0.22-J	1	D-2
	R563	0BL49332JA	CP-R-CARBON	RK73K2E 1/4W 3.3K-J TP(TD)	1	C-3
	R564	0BL49472JA	CP-R-CARBON	RK73K2E 1/4W 4.7K-J TP(TD)	1	C-2
	R565	0BL49332JA	CP-R-CARBON	RK73K2E 1/4W 3.3K-J TP(TD)	1	C-3
	R566	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	E-1
	R567	0EL09821JL	R-METAL.OX	RSS 2 L15 820-J (MA-1785)	1	E-1
	R567	0EL09681JL	R-METAL.OX	RSS 2 L15 680-J (MA-1791)	1	E-1
	R568	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	D-1
	R569	0ZL49274JA	CP-R-CARBON	RK73K2A 1/10W 270K-J TP(TD)	1	E-1
	R570	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-4
	R571	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-4
	R572	0ZL49683JA	CP-R-CARBON	RK73K2A 1/10W 68K-J TP(TD) (MA-1785)	1	E-4
	R572	0ZL49823JA	CP-R-CARBON	RK73K2A 1/10W 82K-J TP(TD) (MA-1791)	1	E-4
	R573	0BL08102JL	R-FUSING	RF25SJ 1/4W 1.0K-J L(L10)	1	F-4
	R574	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	D-3
	R575	0CL04103JT	R-CARBON	RD50SS T26 1/2W 10K-J TP	1	E-4
	R576	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	E-3
	R577	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	C-2
	R585	0CL04682JT	R-CARBON	RD50SS T26 1/2W 6.8K-J TP	1	C-3
	R586	0BL49472JA	CP-R-CARBON	RK73K2E 1/4W 4.7K-J TP(TD)	1	A-2
	R601	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-1
	R602	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	F-1
	R603	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	F-4
	R604	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	F-4
	R605	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	E-1
	R606	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R607	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-1
	R608	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	F-1
	R609	0ZL49242JA	CP-R-CARBON	RK73K2A 1/10W 2.4K-J TP(TD)	1	F-1
	R610	0ZL49822JA	CP-R-CARBON	RK73K2A 1/10W 8.2K-J TP(TD)	1	F-2
	R611	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-2
	R612	0ZL482671F	CP-R-CARBON	RK73H2A 1/10W 2.67K-F TP(TD) (MA-1785)	1	F-2
	R612	0ZL482431F	CP-R-CARBON	RK73H2A 1/10W 2.43K-F TP(TD) (MA-1791)	1	F-2
	R613	0BL49102JA	CP-R-CARBON	RK73K2E 1/4W 1.0K-J TP(TD)	1	F-2
	R614	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	E-1
	R615	0ZL49392JA	CP-R-CARBON	RK73K2A 1/10W 3.9K-J TP(TD)	1	F-1
	R616	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	E-1
	R617	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R618	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R619	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R620	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R621	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-1
	R622	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-2
	R623	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-2
	R624	0ZL481401F	CP-R-CARBON	RK73H2A 1/10W 1.40K-F TP(TD)	1	F-2
	R625	0ZL481821F	CP-R-CARBON	RK73H2A 1/10W 1.82K-F TP(TD)	1	F-2
	R626	0ZL481821F	CP-R-CARBON	RK73H2A 1/10W 1.82K-F TP(TD)	1	F-2
	R627	0ZL481001F	CP-R-CARBON	RK73H2A 1/10W 1.00K-F TP(TD)	1	F-2
	R628	0ZL482002F	CP-R-CARBON	RK73H2A 1/10W 20.0K-F TP(TD)	1	E-2
	R629	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	F-2
	R630	0ZL482002F	CP-R-CARBON	RK73H2A 1/10W 20.0K-F TP(TD)	1	E-2
	R633	0ZL483321F	CP-R-CARBON	RK73H2A 1/10W 3.32K-F TP(TD)	1	F-2

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R634	0ZL49332JA	CP-R-CARBON	RK73K2A 1/10W 3.3K-J TP(TD)	1	F-2
	R635	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-2
	R636	0ZL484322F	CP-R-CARBON	RK73H2A 1/10W 43.2K-F TP(TD)	1	F-2
	R637	0ZL483321F	CP-R-CARBON	RK73H2A 1/10W 3.32K-F TP(TD)	1	F-2
	R638	0ZL481212F	CP-R-CARBON	RK73H2A 1/10W 12.1K-F TP(TD)	1	F-2
	R639	0ZL481822F	CP-R-CARBON	RK73H2A 1/10W 18.2K-F TP(TD)	1	F-2
	R640	0ZL486811F	CP-R-CARBON	RK73H2A 1/10W 6.81K-F TP(TD)	1	F-2
	R642	0ZL484322F	CP-R-CARBON	RK73H2A 1/10W 43.2K-F TP(TD)	1	F-2
	R643	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	F-2
	R644	0ZL484322F	CP-R-CARBON	RK73H2A 1/10W 43.2K-F TP(TD)	1	F-2
	R645	0ZL486811F	CP-R-CARBON	RK73H2A 1/10W 6.81K-F TP(TD)	1	F-2
	R646	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-2
	R649	0ZL49273JA	CP-R-CARBON	RK73K2A 1/10W 27K-J TP(TD)	1	F-2
	R650	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R651	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-3
	R652	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-3
	R653	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R654	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R655	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R656	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R657	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R658	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-3
	R659	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-3
	R660	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	E-3
	R661	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	E-3
	R662	0ZL49203JA	CP-R-CARBON	RK73K2A 1/10W 20K-J TP(TD)	1	F-4
	R663	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD)	1	F-4
	R664	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	F-3
	R665	0ZL49154JA	CP-R-CARBON	RK73K2A 1/10W 150K-J TP(TD)	1	F-3
	R666	0ZL49182JA	CP-R-CARBON	RK73K2A 1/10W 1.8K-J TP(TD)	1	E-3
	R667	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	E-3
	R668	0BL49513JA	CP-R-CARBON	RK73K2E 1/4W 51K-J TP(TD)	1	E-3
	R669	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	E-3
	R670	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	F-3
	R671	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD)	1	E-3
	R675	0BL49513JA	CP-R-CARBON	RK73K2E 1/4W 51K-J TP(TD)	1	D-3
	R680	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	A-1
	R681	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	E-1
	R682	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-1
	R683	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	E-1
	R684	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	E-1
	R685	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-1
	R686	0ZL49471JA	CP-R-CARBON	RK73K2A 1/10W 470-J TP(TD)	1	A-2
	R687	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R688	0ZL49471JA	CP-R-CARBON	RK73K2A 1/10W 470-J TP(TD)	1	A-1
	R690	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	E-1
	R691	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R692	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	F-3
	R693	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	E-3
	R694	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-1
	R695	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-1
	R696	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-1
	R697	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R698	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	F-3
	R699	0ZL49000ZA	CP-JP	RK73Z2ATD	1	F-2
	R701	0EL09R27JL	R-METAL.OX	RSSX 2 L15 0.27-J	1	B-2
	R705	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	B-2
	R706	0JM36330JH	R-CEMENT	BGR7Z 33-J	1	B-3
X	R707	0ZL49183JA	CP-R-CARBON	RK73K2A 1/10W 18K-J TP(TD)	1	A-1
X	R708	0BL08150JL	R-FUSING	RF25SJ 1/4W 15-J L(L10)	1	A-1
X	R709	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-1
X	R710	0BK181003S	R-METAL	SN14K2C T26 100K-F TP	1	A-1
X	R711	0BL49204JA	CP-R-CARBON	RK73K2E 1/4W 200K-J TP(TD)	1	A-1
	R712	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	B-3
	R713	0BL49154JA	CP-R-CARBON	RK73K2E 1/4W 150K-J TP(TD)	1	B-3
	R714	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	A-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R733	0BL49273JA	CP-R-CARBON	RK73K2E 1/4W 27K-J TP(TD) (MA-1785)	1	B-1
	R733	0BL49333JA	CP-R-CARBON	RK73K2E 1/4W 33K-J TP(TD) (MA-1791)	1	B-1
	R734	0BS72121JV	R-SOLID	ERC-14G 1/4W 120-J TP	1	B-1
	R735	0ZL49184JA	CP-R-CARBON	RK73K2A 1/10W 180K-J TP(TD)	1	B-1
	R736	0ZL49334JA	CP-R-CARBON	RK73K2A 1/10W 330K-J TP(TD)	1	B-1
	R737	0BL49472JA	CP-R-CARBON	RK73K2E 1/4W 4.7K-J TP(TD)	1	B-1
	R738	0BL49180JA	CP-R-CARBON	RK73K2E 1/4W 18-J TP(TD)	1	B-1
	R760	0ZL49471JA	CP-R-CARBON	RK73K2A 1/10W 470-J TP(TD)	1	A-4
	R761	0BL49562JA	CP-R-CARBON	RK73K2E 1/4W 5.6K-J TP(TD)	1	A-4
	R762	0BL49562JA	CP-R-CARBON	RK73K2E 1/4W 5.6K-J TP(TD)	1	A-4
	R763	0CL08100JL	R-FUSING	RF50SJ 1/2W 10-J L(L12.5)	1	A-4
	R764	0CL08100JL	R-FUSING	RF50SJ 1/2W 10-J L(L12.5)	1	A-4
	R765	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	A-4
	R766	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R767	0ZL49243JA	CP-R-CARBON	RK73K2A 1/10W 24K-J TP(TD)	1	A-4
	R768	0BL49393JA	CP-R-CARBON	RK73K2E 1/4W 39K-J TP(TD)	1	A-4
	R769	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD)	1	A-4
	R770	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD)	1	A-4
	R771	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-2
	R772	0BL49100JA	CP-R-CARBON	RK73K2E 1/4W 10-J TP(TD)	1	A-4
	R775	0CS72332KV	R-SOLID	ERC-12G 1/2W 3.3K-K TP	1	A-1
	R780	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD)	1	A-2
	R781	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	A-3
	R782	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	A-3
	R783	0CL04224JT	R-CARBON	RD50SS T26 1/2W 220K-J TP	1	A-3
	R784	0CL04224JT	R-CARBON	RD50SS T26 1/2W 220K-J TP	1	A-3
	R785	0BL49105JA	CP-R-CARBON	RK73K2E 1/4W 1.0M-J TP(TD)	1	A-3
	R786	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-3
	R788	0BL49683JA	CP-R-CARBON	RK73K2E 1/4W 68K-J TP(TD)	1	A-3
	R789	0BL49683JA	CP-R-CARBON	RK73K2E 1/4W 68K-J TP(TD)	1	A-3
	R790	0BL49105JA	CP-R-CARBON	RK73K2E 1/4W 1.0M-J TP(TD)	1	A-3
	R791	0BL49683JA	CP-R-CARBON	RK73K2E 1/4W 68K-J TP(TD)	1	A-3
	R792	0BL083R3JL	R-FUSING	RF25SJ 1/4W 3.3-J L(L10) (MA-1785)	1	A-3
	R805	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-4
	R806	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-4
	R807	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-3
	R808	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-4
	R809	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	E-2
	R813	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	E-1
	R814	0ZL482432F	CP-R-CARBON	RK73H2A 1/10W 24.3K-F TP(TD)	1	E-1
	R815	0ZL482432F	CP-R-CARBON	RK73H2A 1/10W 24.3K-F TP(TD)	1	E-1
	R816	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	E-1
	R817	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	E-2
	R818	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	E-2
	R830	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	F-4
	R831	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD)	1	F-4
	R832	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-4
	R833	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	F-4
	R835	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-3
	R836	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-3
	R837	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	F-4
	R901	0DL08R47JL	R-FUSING	RF1SJ 1W 0.47-J L(L15)	1	B-3
	R902	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	B-3
	R903	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-3
	R904	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	B-4
	R905	0BL485112F	CP-R-CARBON	RK73H2E 1/4W 51.1K-F TP(TD)	1	B-4
	R906	0ZL481002F	CP-R-CARBON	RK73H2A 1/10W 10.0K-F TP(TD)	1	B-4
	R907	0ZL483920F	CP-R-CARBON	RK73H2A 1/10W 392-F TP(TD)	1	B-4
	R908	0ZL485622F	CP-R-CARBON	RK73H2A 1/10W 56.2K-F TP(TD)	1	D-2
	R909	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	B-3
	R910	0ZL482673F	CP-R-CARBON	RK73H2A 1/10W 267K-F TP(TD)	1	A-3
	R911	0ZL483013F	CP-R-CARBON	RK73H2A 1/10W 301K-F TP(TD)	1	A-3
	R912	0ZL483921F	CP-R-CARBON	RK73H2A 1/10W 3.92K-F TP(TD)	1	D-2
	R913	0ZL483920F	CP-R-CARBON	RK73H2A 1/10W 392-F TP(TD)	1	D-2
	R914	0ZL49272JA	CP-R-CARBON	RK73K2A 1/10W 2.7K-J TP(TD)	1	A-4
	R915	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	B-4

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R916	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-4
	R917	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	B-4
	R918	0ZL481622F	CP-R-CARBON	RK73H2A 1/10W 16.2K-F TP(TD)	1	B-4
	R919	0ZL483921F	CP-R-CARBON	RK73H2A 1/10W 3.92K-F TP(TD)	1	B-4
	R921	0ZL483921F	CP-R-CARBON	RK73H2A 1/10W 3.92K-F TP(TD)	1	D-2
	R922	0ZL483920F	CP-R-CARBON	RK73H2A 1/10W 392-F TP(TD)	1	D-2
	R923	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	C-4
	R924	0ZL49332JA	CP-R-CARBON	RK73K2A 1/10W 3.3K-J TP(TD)	1	C-4
	R926	0ZL484643F	CP-R-CARBON	RK73H2A 1/10W 464K-F TP(TD)	1	D-2
	R927	0ZL49105JA	CP-R-CARBON	RK73K2A 1/10W 1.0M-J TP(TD)	1	A-3
	R930	0BL49102JA	CP-R-CARBON	RK73K2E 1/4W 1.0K-J TP(TD)	1	A-3
	R931	0BL49473JA	CP-R-CARBON	RK73K2E 1/4W 47K-J TP(TD)	1	A-3
	R932	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	A-3
	R933	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	A-3
	R934	0BL482213F	CP-R-CARBON	RK73H2E 1/4W 221K-F TP(TD)	1	A-3
	R935	0ZL487151F	CP-R-CARBON	RK73H2A 1/10W 7.15K-F TP(TD)	1	A-3
	R936	0BL49474JA	CP-R-CARBON	RK73K2E 1/4W 470K-J TP(TD)	1	A-3
	R939	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R940	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R941	0ZL49683JA	CP-R-CARBON	RK73K2A 1/10W 68K-J TP(TD)	1	B-4
	R945	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	A-3
	R946	0ZL49000ZA	CP-JP	RK73Z2ATD	1	E-4
	R948	0EL09220JH	R-METAL.OX	RSS 2 22-J	1	U907(2)-D933(+)
	R951	0CL04273JT	R-CARBON	RD50SS T26 1/2W 27K-J TP	1	B-3
	R952	0CL04273JT	R-CARBON	RD50SS T26 1/2W 27K-J TP	1	B-3
	R955	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	C-3
	R956	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	C-3
	R957	0ZL49105JA	CP-R-CARBON	RK73K2A 1/10W 1.0M-J TP(TD)	1	C-3
	R958	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	C-3
	R959	0ZL49153JA	CP-R-CARBON	RK73K2A 1/10W 15K-J TP(TD)	1	C-3
	R960	0ZL481003F	CP-R-CARBON	RK73H2A 1/10W 100K-F TP(TD)	1	D-3
	R961	0ZL49470JA	CP-R-CARBON	RK73K2A 1/10W 47-J TP(TD)	1	D-3
	R962	0ZL49120JA	CP-R-CARBON	RK73K2A 1/10W 12-J TP(TD)	1	C-3
	R963	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	C-3
	R964	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	C-3
	R965	0EL32R22JM	R-METAL.PLATE	BPR 28 2W 0.22-J	1	B-3
	R966	0FL09331JL	R-METAL.OX	RSS 3 L20 330-J	1	C-3
	R967	0ZL49124JA	CP-R-CARBON	RK73K2A 1/10W 120K-J TP(TD)	1	D-3
	R968	0ZL49154JA	CP-R-CARBON	RK73K2A 1/10W 150K-J TP(TD)	1	D-3
	R969	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	D-3
	R970	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	D-3
	R971	0ZL49470JA	CP-R-CARBON	RK73K2A 1/10W 47-J TP(TD)	1	C-3
	R972	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	D-4
	R973	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	D-3
	R974	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	D-3
	R975	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	D-3
	R976	0BL485112F	CP-R-CARBON	RK73H2E 1/4W 51.1K-F TP(TD)	1	B-4
	R978	0BL485622F	CP-R-CARBON	RK73H2E 1/4W 56.2K-F TP(TD)	1	B-3
	R979	0HM36330JN	R-CEMENT	BGR5N 33-J	1	E-4
	R980	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	D-3
	R984	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	D-3
	R985	0ZL49272JA	CP-R-CARBON	RK73K2A 1/10W 2.7K-J TP(TD)	1	D-3
	R986	0DL49104JB	CP-R-CARBON	RK73K3A 1W 100K-J TP(TE4)	1	D-3
S	RY1	09F39171A1	RELAY	JW2ASN-D12V	1	F-4
S	RY1	39F39171A1	RELAY	JW2ASN-D12V	1	F-4
	(RY1)	05D07705A1	SHIELD	SHIELD-R	1	F-4
	RY501	09F39101A1	RELAY	JV-12-KT	1	D-2
	(RY501)	05D07529A1	SHEET	SHEET	1	D-2
	SG1	09F38165T1	SPARK-GAP	DSP-102N-A21F	1	F-5
	SG701	09F38339T1	SPARK-GAP	AG15 PC 202 FB-K2M	1	A-1
	SG702	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2 (RADIAL)	1	EY37-C733(-)
S	SW1	09F45120A1	SW-POWER	SDDFC3	1	F-5
S	T1	05F13759A1	TRANS-SW	ETI-703	1	D-5
	T501	35F13725A1	TRANS-H.OUT	NN043B	1	C-2
	T501	05F13725A1	TRANS-H.OUT	NN043B	OR	C-2
	T502	35F13719A1	TRANS-H.DRIVE	NN044	1	E-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	T502	05F13719A1	TRANS-H.DRIVE	NN044	OR	E-1
XS	T701	05F13721A1	TRANS-FBT	MSU1FUS12	1	A-2
	(T701)	0FN803010D	SCREW	B-TITE-P-TP 3X10 ZN/FE	3	A-2
	T761	05F13760A1	TRANS-H.FOCUS	05F13760A1	1	A-3
	T951	05F13731A1	TRANS	ETI705-DD	1	D-3
	TP1	00J44862A2	PIN-TP	RT-01T-1.0B	1	F-4
	TP2	08F44337A1	PIN-HOLDER	155-07	1	D-5
	TP702	00J44862A2	PIN-TP	RT-01T-1.0B	1	A-1
X	U1	09F26143A1	IC	STR-S6531A	1	C-5
	(U1)	09F49034A1	RADIATOR	OSV-15100C-L75 MA1790	1	C-5
	(U1)	39F49034A1	RADIATOR	OSV-15100C-L75	OR	C-5
	(U1)	0FF613016D	SCREW	SCREW-SEMS-P-PAN M3X16(W/SW) ZN/FE	2	C-5
	(U1)	05D07686A1	U-PLATE		1	C-5
S	(U1)	09F52137A1	INSULATOR	TFC-CAP-0.5T-3GR-S(M435942)	1	C-5
	U401	09F26025A1	IC	LA7841	1	E-2
	(U401)	05D07609C1	RADIATOR	RADIATOR-MF MA1790	1	E-2
	(U401)	35D07609C2	RADIATOR	RADIATER-MF MA1790	OR	E-2
	(U401)	08R52115A1	INSULATOR	M-30(30X16)D-961	1	E-2
	(U401)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	E-2
	U409	09F26023A1	IC	LA6500-FA	1	C-3
	(U409)	38R49039A2	RADIATOR	OSH-1035-SPL	1	C-3
	(U409)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	C-3
	(U409)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	C-3
	U501	09F26112T1	CP-IC	BA4558F	1	E-4
	U601	09F26270A1	IC	UPC1883ACT	1	F-2
	U602	09F26112T1	CP-IC	BA4558F	1	F-2
	U603	09F26112T1	CP-IC	BA4558F	1	F-3
	U604	08N26343A5	IC	UPC78M09AHF	1	E-1
	U605	09F26022T1	CP-IC	CXA1726AM-T6	1	F-3
	U606	08F27715T1	CP-IC	TC4066BF TP1	1	F-2
	U607	09F26024A1	IC	LA6520	1	F-1
	U701	09F26069B1	ASSY PCB-PCS	MSPAC002	1	C-3
	U760	08N26317A1	CP-IC	M5238AFP-600C	1	A-4
	U801	08R27247T1	CP-IC	M62352FP	1	F-2
	U802	09F27054T1	CP-IC	MB88346BPF-G-BND-EF	1	A-4
	U803	08R27247T1	CP-IC	M62352FP	1	B-4
	U804	09F26112T1	CP-IC	BA4558F	1	D-2
	U901	09F26026A1	IC	STR-D3010F	1	B-3
	U902	09F26132A1	IC	SI-3050N	1	B-4
	U903	08N26314A1	IC	PQ30RV11	1	B-4
	(U903)	38R49039A2	RADIATOR	OSH-1035-SPL	1	B-4
	(U903)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	B-4
	(U903)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	B-4
	U904	09F26122A1	IC	LM2941 CT/LB03	1	E-2
	U905	09F26123A1	IC	LM2991 T/LB03	1	E-2
	U906	08R26242A1	IC	SI-3050F	1	B-4
	(U906)	38R49039A2	RADIATOR	OSH-1035-SPL	1	B-4
	(U906)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	B-4
	(U906)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	B-4
	U907	09F26132A3	IC	SI-3120N	1	D-4
	U907	09F26214A1	IC	SI-3121N	OR	D-4
	U908	08F26262A1	IC	NJM79M05FA	1	E-4
	(U908)	38R49039A2	RADIATOR	OSH-1035-SPL	1	E-4
	(U908)	08R49039A2	RADIATOR	OSH-1035-SPL	OR	E-4
	(U908)	05S90032A1	SCREW	SCREW-SEMS-P-PAN M3X8 (W/SW) ZN/FE	1	E-4
	U909	08R26113T1	CP-IC	AN1431M	1	C-4
	U951	09F26144T1	CP-IC	UC3842ADR2	1	C-3
X	VR701	00L38104CB	R-SEMX	RH0684C15R-100KB TP	1	A-1
X	VR702	00H13223WB	R-SEMX	RH063LCJ4R-22KB	1	A-1
	VR901	00L38331BB	R-SEMX	RH0683CN2R-330B TP	1	B-4
	ZD1	08H25126B3	CP-D-ZENER	MA8068-M (TX)	1	B-5
	ZD2	08H25129B4	CP-D-ZENER	MA8130-M (TX)	1	B-5
	ZD3	08H25126B3	CP-D-ZENER	MA8068-M (TX)	1	B-5
	ZD4	00N25701T9	D-ZENER	HZS6C3LTD	1	E-5
	ZD5	08H25125B8	CP-D-ZENER	MA8062-M (TX)	1	C-5
	ZD6	09F29177S1	D-VARISTER	ERZV14V431CS	1	E-5

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	ZD501	08H25128B9	CP-D-ZENER	MA8120-M (TX)	1	E-1
	ZD502	00N25736B2	D-ZENER	HZS20NB2TD	1	E-3
	ZD503	00N25498T1	D-ZENER	HZS2ALLTD	1	C-2
	ZD504	00N25736B2	D-ZENER	HZS20NB2TD	1	F-4
	ZD601	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	E-1
	ZD602	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	F-2
	ZD603	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-1
	ZD604	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-1
	ZD651	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	E-3
	ZD652	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-1
	ZD830	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	F-4
	ZD831	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	F-3
	ZD832	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	F-3
	ZD901	00N25498T6	D-ZENER	HZS3CLLTD	1	B-3
	ZD903	08H25128B9	CP-D-ZENER	MA8120-M (TX)	1	C-4
	ZD904	08H25126B7	CP-D-ZENER	MA8075-M (TX)	1	A-3
	ZD905	08N25416T3	D-ZENER	1ZB20 TPA3	1	C-4
	ZD951	08N25416T3	D-ZENER	1ZB20 TPA3	1	C-3
	ZD952	08H25125B8	CP-D-ZENER	MA8062-M (TX)	1	D-3
	ZZ601	05D07615B1	SHIELD	SHIELD-MF MA1790	1	
	ZZ602	05D07764A1	EARTH	C5120R t=0.18	1	
	ZZ603	05D07764A1	EARTH	C5120R t=0.18	1	
	ZZ901	08F54378A1	CABLE CLIP	CABLE CLIP NO.617	1	
	ZZ902	08R50523A1	FERRITE-CORE	ZCAT1518-0730-M	1	
	ZZ903	08N54105A1	CLAMPER	PLT1M (MA-1785)	3	
	ZZ903	08N54105A1	CLAMPER	PLT1M (MA-1791)	2	
	ZZ903	08N54089A1	CLAMPER	T18R	OR	
	AH-AA	05V03145A6	ASSY HARNESS	ASSY HARNESS A-A MA-1782	1	
	AH-BB	05V03471A1	ASSY CN	ASSY CN HENSO-1	1	
	AH-GG	05V03471A1	ASSY CN	ASSY CN HENSO-1	1	
	AH-JJ	05V03151A5	ASSY HARNESS	ASSY HARNESS J-J MA-1782	1	
	(AC-INLET)	09F43028A1	AC-INLET	GL-2030EZ-40	1	
	(AC-INLET)	05C02892B1	INLET-HOLDER	INLET-HOLDER MA1790	1	
	(AC-INLET)	0FJ923008D	SCREW	TAP-TITE-SCREW B-TITE-BIND 3X8 ZN/FE	2	
	(ASS'Y Q512)	09F49033A2	RADIATOR	OSV-15100S-L32-BPWL MA1785	1	
	(ASS'Y Q512)	39F49033A2	RADIATOR	OSV-15100S-L32-BPWL	OR	
	(ASS'Y Q512)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	3	
	(ASS'Y Q512)	08F52022A1	INSULATOR	M-30(13X18)D-1 DSN-CSSX-G53003	1	
	(ASS'Y Q512)	00J49987A1	INSULATOR	INSULATOR 25K (B-24)	1	
	(ASS'Y Q760)	05D07794A1	RADIATOR	RADIATOR-EFC	1	
	(ASS'Y Q760)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	4	
	(ASS'Y Q760)	0FF613016D	SCREW	SCREW-SEMS-P-PAN M3X16(W/SW) ZN/FE	2	
	(H-OUT)	05C02860B1	RADIATOR	RADIATOR-M MA1790	1	
	(H-OUT)	35C02860B2	RADIATOR	RADIATER-M MA1790	OR	
	(H-OUT)	00N54748A3	COATING CLIP	COATING CLIP CS-3	1	
	(H-OUT)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	3	
	(H-OUT)	00R52598A1	INSULATOR	M-45(25X30)D-7 DSN-CSSX-G53002	2	
	(H-OUT)	09F51157A1	SPACER	KGLS-4S	1	
	(H-OUT)	05V03491B1	ASSY HARNESS	ASSY EARTH	1	
	(H-OUT)	0FN933008D	SCREW	B-TITE-SEMS-P-BIND 3X8 ZN/FE	2	
		05C02863C1	ASS'Y-BASE		1	
		09F54215A1	CABLE-CLIP	2047	1	
		08N54105A1	CLAMPER	PLT1M	3	
		08N54089A1	CLAMPER	T18R	OR	
		05D07799A1	COVER-D		2	
		08R50523A1	FERRITE-CORE	ZCAT1518-0730-M	2	
S		05B01076C1	PCB-FRAME		1	
		0FN803010D	SCREW	TAP-TITE-P-TP 3X10 B-TYPE Zn/Fe	3	
		0FN933008D	SCREW	B-TITE-SEMS-P-BIND 3X8 Zn/Fe	1	
		0FF614010N	SCREW	SCREW-SEMS-P-PAN 4X10 (W/SW) Ni/Fe	1	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
				***** PCB-T EFC *****		
	C737	0KK86470JC	CP-C-CERAMIC	GRM40 50V CH 470J PT (MA-1785)	1	
	C737	0KK86270JC	CP-C-CERAMIC	GRM40 50V CH 270J PT (MA-1791)	1	
	C738	0KK86270JC	CP-C-CERAMIC	GRM40 50V CH 270J PT	1	
	C739	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	
	C740	0KK86101JC	CP-C-CERAMIC	GRM40 50V CH 101J PT (MA-1785)	1	
	C741	0KT91100MT	C-EL	YXA 50V 10MF-M TP 5X11	1	
	C742	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C743	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	
	C744	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	
	C745	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C747	0KK90333KB	CP-C-CERAMIC	GRM40 50V B 333K PT (MA-1785)	1	
	C748	0KT91100MT	C-EL	YXA 50V 10MF-M TP 5X11	1	
	C749	0KT91100MT	C-EL	YXA 50V 10MF-M TP 5X11	1	
	C750	0KK86102JC	CP-C-CERAMIC	GRM40 50V CH 102J PT	1	
	C751	0KK86561JC	CP-C-CERAMIC	GRM40 50V CH 561J PT (MA-1785)	1	
	C751	0KK86561JC	CP-C-CERAMIC	GRM40 50V CH 561J PT (MA-1791)	1	
	C753	0XT18472KB	CP-C-CERAMIC	GHM1530 B 472K 630	1	
	C754	0KK86561JC	CP-C-CERAMIC	GRM40 50V CH 561J PT (MA-1785)	1	
	C754	0KK86561JC	CP-C-CERAMIC	GRM40 50V CH 561J PT (MA-1791)	1	
	C755	0XT18472KB	CP-C-CERAMIC	GHM1530 B 472K 630	1	
	C756	0RT911R0MT	C-EL	YXA 250V 1MF-M TP 6.3X11	1	
	C757	0XT18472KB	CP-C-CERAMIC	GHM1530 B 472K 630	1	
	C758	0KT912R2MT	C-EL	YXA 50V 2.2MF-M TP 5X11	1	
	C759	0KT912R2MT	C-EL	YXA 50V 2.2MF-M TP 5X11	1	
	CN741	05V03459A1	ASSY HARNESS	ASSY HARNESS EFC	1	
	CNANT	00J44862A2	PIN-TP	RT-01T-1.0B	1	
	D741	08H25119A1	CP-D	HSM83-TL	1	
	D742	08H25119A1	CP-D	HSM83-TL	1	
	Q741	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	
	Q742	00H29358T1	CP-TR-DIGITAL	DTC144EK T-146 (MA-1785)	1	
	R741	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD) (MA-1785)	1	
	R741	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD) (MA-1791)	1	
	R742	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	
	R743	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	
	R744	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD) (MA-1785)	1	
	R745	0BL49472JA	CP-R-CARBON	RK73K2E 1/4W 4.7K-J TP(TD)	1	
	R746	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD) (MA-1785)	1	
	R746	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD) (MA-1791)	1	
	R747	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD)	1	
	R748	0ZL49334JA	CP-R-CARBON	RK73K2A 1/10W 330K-J TP(TD) (MA-1785)	1	
	R748	0ZL49334JA	CP-R-CARBON	RK73K2A 1/10W 330K-J TP(TD) (MA-1791)	1	
	R749	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD) (MA-1785)	1	
	R749	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD) (MA-1791)	1	
	R750	0ZL49000ZA	CP-JP	RK73Z2ATD (MA-1785)	1	
	R751	0CL04470JT	R-CARBON	RD50SS T26 1/2W 47-J TP	1	
	U741	09F26344A1	IC	STK290-010	1	
				***** PCB-T CS *****		
	C570	0QG77683JF	C-PLASTIC	DTW 200V 683J SRT (MA-1785)	1	
	C570	0QG77104JF	C-PLASTIC	DTW 200V 104J SRT (MA-1791)	1	
	C571	0UT47204JF	C-PLASTIC	DHSM 400V 204J SRT (MA-1785)	1	
	C571	0UT47244JF	C-PLASTIC	DHSM 400V 244J SRT (MA-1791)	1	
	C572	0UT47204JF	C-PLASTIC	DHSM 400V 204J SRT (MA-1785)	1	
	C572	0UT47274JF	C-PLASTIC	DHSM 400V 274J SRT (MA-1791)	1	
	C573	0UT47184JF	C-PLASTIC	DHSM 400V 184J SRT (MA-1785)	1	
	C573	0UT47244JF	C-PLASTIC	DHSM 400V 244J SRT (MA-1791)	1	
	C574	0UT47474JF	C-PLASTIC	DHSM 400V 474J SRT (MA-1785)	1	
	C574	0UT47684JF	C-PLASTIC	DHSM 400V 684J SRT (MA-1791)	1	
	C575	0UT47824JF	C-PLASTIC	DHSM 400V 824J SRT (MA-1785)	1	
	C575	0UT47125JF	C-PLASTIC	DHSM 400V 125J SRT (MA-1791)	1	
	C576	0UT47125JF	C-PLASTIC	DHSM 400V 125J SRT (MA-1785)	1	
	C576	0UT47155JF	C-PLASTIC	DHSM 400V 155J SRT (MA-1791)	1	
	C577	0KQ354R7MT	C-EL	VZ 50V 4.7MF-M TP 5X11	1	
	C577	0KT914R7MT	C-EL	YXA 50V 4.7MF-M TP 5X11	OR	
	C578	0KQ351R0MT	C-EL	VZ 50V 1.0MF-M TP 5X11	1	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C579	0KQ353R3MT	C-EL	VZ 50V 3.3MF-M TP 5X11	1	
	C579	0KT913R3MT	C-EL	YXA 50V 3.3MF-M TP 5X11	OR	
	C580	0KQ351R0MT	C-EL	VZ 50V 1.0MF-M TP 5X11	1	
	C581	0KQ351R0MT	C-EL	VZ 50V 1.0MF-M TP 5X11	1	
	C582	0KQ351R0MT	C-EL	VZ 50V 1.0MF-M TP 5X11	1	
	C583	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C584	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C585	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C586	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C587	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C588	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C589	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C590	0GK90104ZF	CP-C-CERAMIC	GRM40 25V F 104Z PT	1	
	C591	0KK86221JC	CP-C-CERAMIC	GRM40 50V CH 221J PT	1	
	C592	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	
	C593	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	
	CN570	09F40105A3	CN	B4PS-VS-8.1	1	
	CN571	09F40105A1	CN	B2PS-VS-8.1	1	
	CN572	00J40644A6	CN	S7B-PH-K-S	1	
	D580	00H25737C1	CP-D	DAN202K (T146)	1	
	D581	00H25737C1	CP-D	DAN202K (T146)	1	
	D582	00H25737C1	CP-D	DAN202K (T146)	1	
	D583	00H25737C1	CP-D	DAN202K (T146)	1	
	D584	08H25035C1	CP-D	DAN217 (T146)	1	
	Q570	08N24434A1	TR-FET	2SK2131	1	
	Q571	08N24351A1	TR-FET	2SK2098-01M	1	
	Q572	08N24351A1	TR-FET	2SK2098-01M	1	
	(Q572)	38R49039A1	RADIATOR	OSH1025-SPL	1	
	(Q572)	0FF623010D	SCREW	SCREW-SEMS-P-PAN M3X10(W/SW) ZN/FE	1	
	(Q572)	08R49039A1	RADIATOR	OSH-1025-SPL	OR	
	Q573	08N24434A1	TR-FET	2SK2131	1	
	Q574	08N24434A1	TR-FET	2SK2131 (MA-1785)	1	
	Q574	08N24351A1	TR-FET	2SK2098-01M (MA-1791)	1	
	Q575	08N24434A1	TR-FET	2SK2131 (MA-1785)	1	
	Q575	08N24351A1	TR-FET	2SK2098-01M (MA-1791)	1	
	R550	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R551	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R552	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R553	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R554	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R555	0BL49104JA	CP-R-CARBON	RK73K2E 1/4W 100K-J TP(TD)	1	
	R580	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R581	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R582	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R583	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R584	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R585	0ZL49100JA	CP-R-CARBON	RK73K2A 1/10W 10-J TP(TD)	1	
	R586	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R587	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R588	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R589	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R590	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R591	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	
	R592	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	
	R593	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	
	R594	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	
	R595	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	
	R596	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	
	R597	0BL49332JA	CP-R-CARBON	RK73K2E 1/4W 3.3K-J TP(TD)	1	
	RA570	0BS67332J7	R-NETWORK	RKH 1/4 B6 332 J	1	
	U570	08R27022T1	CP-IC	BU2092F	1	
	ZD580	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	
	ZD581	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	
	ZD582	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	
	ZD583	08H25125B8	CP-D-ZENER	MA8062-M (TX)	1	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
***** PCB-T CRT *****						
	C330	02L81472ZE	C-CERAMIC	DE1510-1 E 472Z 2KV (SRT)	1	
	C331	02L81102KB	C-CERAMIC	DE0907-1 B 102K 2KV (SRT)	1	
	C332	0WH81222KB	C-CERAMIC	DD09-959 B 222K 500V TP (MA-1785)	1	
	C333	0WH81222KB	C-CERAMIC	DD09-959 B 222K 500V TP	1	
	C335	0WH81222KB	C-CERAMIC	DD09-959 B 222K 500V TP	1	
	C336	0WH81222KB	C-CERAMIC	DD09-959 B 222K 500V TP (MA-1785)	1	
	C337	0RQ961R0M1	C-EL	YK 250V 1MF-M TP 6.3X11 (MA-1785)	1	
	C338	0TQ964R7M1	C-EL	YK 350V 4.7MF-M TP 10X12.5 (MA-1785)	1	
	CN330	00J40190A5	CN	B6B-EH	1	
	CN331	00N40581A3	CN	IL-S-4P-S2T2-EF (LIGHT BROWN)	1	
	CN332	00F44547B1	PIN-GT	2.36ϕ GT-PIN	1	
	CN333	09F44161A1	TAB	TP42097-21	1	
	CN334	00J40190A1	CN	B2B-EH (MA-1785)	1	
	D330	00N25092T2	D	ERA15-02V5 (MA-1785)	1	
	L330	00L13R15MT	L-AXIAL	LF5.0S R15 T26 M	1	
	L331	00L13R15MT	L-AXIAL	LF5.0S R15 T26 M	1	
	L332	00L13R18MT	L-AXIAL	LF5.0S R18 T26 M	1	
	NF331	08N50444A1	NF	DSS306-93FZ103N100 (MA-1791)	1	
	NF332	08N50444A1	NF	DSS306-93FZ103N100 (MA-1785)	1	
	NF333	08N50444A1	NF	DSS306-93FZ103N100 (MA-1785)	1	
	Q330	0AH21091ZZ	TR	2SA1091-R,O (TPE2)(MA-1785)	1	
	R330	0BS72121JV	R-SOLID	ERC-14G 1/4W 120-J TP	1	
	R331	0BS72121JV	R-SOLID	ERC-14G 1/4W 120-J TP	1	
	R332	0BS72121JV	R-SOLID	ERC-14G 1/4W 120-J TP	1	
	R333	0CS72104KV	R-SOLID	ERC-12G 1/2W 100K-K TP	1	
	R334	0CL04103JT	R-CARBON	RD50SS T26 1/2W 10K-J TP(MA-1791)	1	
	R338	0BL08R33JL	R-FUSING	RF25SJ 1/4W 0.33-J L(L10)	1	
	R339	0CL04104JT	R-CARBON	RD50SS T26 1/2W 100K-J TP (MA-1785)	1	
	R340	0CL04103JT	R-CARBON	RD50SS T26 1/2W 10K-J TP (MA-1785)	1	
	R341	0BK10124JT	R-CARBON	KRDS2T 1/4W 120K-J TP (MA-1785)	1	
	R342	0BK10334JT	R-CARBON	KRDS2T 1/4W 330K-J TP (MA-1785)	1	
	R343	0BK10563JT	R-CARBON	KRDS2T 1/4W 56K-J TP (MA-1785)	1	
S	S330	09F43271B1	SOCKET-CRT	CVT3257-0172T (MA-1785)	1	
S	S330	39F43271A1	SOCKET-CRT	CVT3257-0172T (MA-1785)	OR	
S	S330	09F43272B1	SOCKET-CRT	CVT3257-0579(MA-1791)	1	
S	S330	39F43272A1	SOCKET-CRT	CVT3257-0579(MA-1791)	OR	
	SG330	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2(RADIAL)	1	
	SG331	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2(RADIAL)	1	
	SG332	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2(RADIAL)	1	
	SG333	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2(RADIAL)	1	
	SG334	09F38065A1	SPARK-GAP	RA-231M-V6-Y-2(RADIAL)	1	
	SG335	09F38138A1	SPARK-GAP	RA-152M-V6-Y-2(RADIAL)	1	
	ZD330	00N25734B5	D-ZENER	HZS12NB2TD(MA-1785)	1	
	ZZ301	05D07723A1	SPRING-EARTH	SPRING-EARTH	1	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
2. ASS'Y VIDEO UNIT						
***** PCB-VIDEO *****						
	AC101	09F40091B1	CN	JXT1107-010010	1	
	BZ351	09F39092A1	BUZZER	PKM13EPY-4000-TF01	1	B-1
	C101	0KQ37220MT	C-EL	MA 50V 22MF-M TP 8X5	1	B-3
	C102	0AQ37101MT	C-EL	MA 6.3V 100MF-M TP 6.3X5	1	C-3
	C103	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	D-3
	C104	0EQ96470M1	C-EL	YK 16V 47MF-M TP 5X11	1	C-1
	C105	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-3
	C106	0KP03330JC	CP-C-CERAMIC	GRM39 50V CH 330J PT	1	C-3
	C107	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	C-3
	C108	0KQ371R0MT	C-EL	MA 50V 1MF-M TP 4X5	1	D-3
	C109	0KQ371R0MT	C-EL	MA 50V 1MF-M TP 4X5	1	D-3
	C110	0KQ374R7MT	C-EL	MA 50V 4.7MF-M TP 5X5	1	D-3
	C111	0AQ37101MT	C-EL	MA 6.3V 100MF-M TP 6.3X5	1	D-3
	C112	0KP13683JT	C-PLASTIC	ECQ-B1H 683J F3 (TP)	1	E-3
	C113	0KQ96100M1	C-EL	YK 50V 10MF-M TP 5X11	1	E-3
	C114	0KQ96100M1	C-EL	YK 50V 10MF-M TP 5X11	1	E-3
	C115	0AQ96221M1	C-EL	YK 6.3V 220MF-M TP 5X11	1	E-3
	C116	0KQ96100M1	C-EL	YK 50V 10MF-M TP 5X11	1	C-1
	C118	0KP04152KB	CP-C-CERAMIC	GRM39 50V B 152K PT	1	D-4
	C119	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-3
	C121	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT (MA-1785)	1	B-1
	C122	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT (MA-1785)	1	D-3
	C123	0KP03181JC	CP-C-CERAMIC	GRM39 50V CH 181J PT	1	C-3
	C124	0KP04152KB	CP-C-CERAMIC	GRM39 50V B 152K PT	1	C-1
	C129	0KP03331JC	CP-C-CERAMIC	GRM39 50V CH 331J PT	1	C-1
	C150	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-1
	C151	0GP03681JC	CP-C-CERAMIC	GRM39 25V CH 681J PT	1	E-2
	C155	0KP03471JC	CP-C-CERAMIC	GRM39 50V CH 471J PT	1	B-1
	C157	0KP03471JC	CP-C-CERAMIC	GRM39 50V CH 471J PT	1	C-3
	C158	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	C-3
	C160	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	C-3
	C161	0GK90104KB	CP-C-CERAMIC	GRM40 25V B 104K PT	1	C-3
	C162	0KK86122JC	CP-C-CERAMIC	GRM40 50V CH 122J PT	1	E-3
	C165	0KP03151JC	CP-C-CERAMIC	GRM39 50V CH 151J PT	1	E-3
	C166	0GP03102JC	CP-C-CERAMIC	GRM39 25V CH 102J PT	1	C-4
	C167	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	B-4
	C168	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	B-4
	C169	0GP03561JC	CP-C-CERAMIC	GRM39 25V CH 561J PT	1	C-2
	C170	0KQ16474J1	C-PLASTIC	ECQ-V1H 474J L3 (TP)	1	E-3
	C171	0KP04272KB	CP-C-CERAMIC	GRM39 50V B 272K PT (MA-1785)	1	B-3
	C172	0KP03560JC	CP-C-CERAMIC	GRM39 50V CH 560J PT	1	E-3
	C173	0KP03270JC	CP-C-CERAMIC	GRM39 50V CH 270J PT	1	B-3
	C174	0KP03330JC	CP-C-CERAMIC	GRM39 50V CH 330J PT	1	B-3
	C175	0KK90103KB	CP-C-CERAMIC	GRM40 50V B 103K PT	1	E-3
	C177	0KP04102KB	CP-C-CERAMIC	GRM39 50V B 102K PT	1	109(1)-R173 rea
	C179	0KP03391JC	CP-C-CERAMIC	GRM39 50V CH 391J PT	1	B-1
	C182	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-3
	C183	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	B-4
	C184	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	B-4
	C186	0GP03102JC	CP-C-CERAMIC	GRM39 25V CH 102J PT	1	B-4
	C201	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	C-4
	C202	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	C-4
	C203	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	C-3
	C204	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	B-4
	C205	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	C-4
	C206	0EQ37470MT	C-EL	MA 16V 47MF-M TP 6.3X5	1	B-4
	C207	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	D-3
	C208	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	D-3
	C209	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	D-3
	C210	0KQ96100M1	C-EL	YK 50V 10MF-M TP 5X11	1	D-3

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C211	0GQ96471M1	C-EL	YK 25V 470MF-M TP 10X12.5	1	D-2
	C212	0KP035R0DC	CP-C-CERAMIC	GRM39 50V CH 5R0D PT	1	D-3
	C213	0KQ962R2M1	C-EL	YK 50V 2.2MF-M TP 5X11	1	D-2
	C214	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	D-2
	C215	0KP035R0DC	CP-C-CERAMIC	GRM39 50V CH 5R0D PT	1	E-3
	C216	0AQ96471M1	C-EL	YK 6.3V 470MF-M TP 6.3X11	1	E-3
	C217	0KP035R0DC	CP-C-CERAMIC	GRM39 50V CH 5R0D PT	1	C-3
	C218	0TQ964R7M1	C-EL	YK 350V 4.7MF-M TP 10X12.5	1	E-1
	C220	0RQ961R0M1	C-EL	YK 250V 1MF-M TP 6.3X11	1	E-1
	C221	0RQ961R0M1	C-EL	YK 250V 1MF-M TP 6.3X11	1	D-3
	C222	0RQ961R0M1	C-EL	YK 250V 1MF-M TP 6.3X11	1	E-1
	C223	0NT91470MT	C-EL	YXA 100V 47MF-M TP 10X12.5	1	E-1
	C224	0ET91101MT	C-EL	YXA 16V 100MF-M TP 5X11	1	D-1
	C225	0NQ96470M1	C-EL	YK 100V 47MF-M TP 10X12.5	1	D-1
	C227	0KP764R7MT	C-EL	KME-BP 50V VB 4.7MF-M TP 5X11	1	A-4
	C228	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	E-3
	C229	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-3
	C251	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-4
	C252	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-4
	C253	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-3
	C254	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	B-4
	C255	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-4
	C256	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	B-4
	C257	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-3
	C258	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-3
	C259	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C260	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C261	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C262	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-2
	C263	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	D-2
	C264	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-2
	C265	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	D-2
	C266	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	D-2
	C267	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-2
	C268	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C269	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C271	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-3
	C272	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	D-1
	C273	0KP03180JC	CP-C-CERAMIC	GRM39 50V CH 180J PT	1	D-1
	C274	0KP03220JC	CP-C-CERAMIC	GRM39 50V CH 220J PT	1	D-1
	C275	0KP03180JC	CP-C-CERAMIC	GRM39 50V CH 180J PT	1	D-1
	C276	0KP03220JC	CP-C-CERAMIC	GRM39 50V CH 220J PT	1	D-1
	C277	0KP03180JC	CP-C-CERAMIC	GRM39 50V CH 180J PT	1	D-1
	C278	0KP03220JC	CP-C-CERAMIC	GRM39 50V CH 220J PT	1	D-1
	C279	0GP03821JC	CP-C-CERAMIC	GRM39 25V CH 821J PT	1	C-1
	C280	0GP03821JC	CP-C-CERAMIC	GRM39 25V CH 821J PT	1	D-1
	C281	0GP03821JC	CP-C-CERAMIC	GRM39 25V CH 821J PT	1	D-1
	C282	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	E-3
	C283	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-4
	C284	0KP03271JC	CP-C-CERAMIC	GRM39 50V CH 271J PT	1	B-2
	C286	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	E-2
	C287	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	E-2
	C288	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	C-3
	C289	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	E-1
	C290	0KP03181JC	CP-C-CERAMIC	GRM39 50V CH 181J PT	1	D-4
	C291	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	D-1
	C293	0RP87104JF	C-PLASTIC	ECQ-E 2104J F3	1	D-1
	C294	0RP87104JF	C-PLASTIC	ECQ-E 2104J F3	1	E-1
	C295	0RP87104JF	C-PLASTIC	ECQ-E 2104J F3 (MA-1785)	1	E-1
	C295	0RP87104JF	C-PLASTIC	ECQ-E 2104J F3 (MA-1791)	1	E-1
	C296	0NT912R2MT	C-EL	YXA 100V 2.2MF-M TP 5X11	1	D-1
	C297	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	E-1
	C298	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	E-2
	C299	0WH81222KB	C-CERAMIC	DD09-959 B 222K 500V TP	1	D-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	C306	0IQ37100MT	C-EL	MA 35V 10MF-M TP 5X5	1	D-4
	C351	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	B-2
	C352	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	B-2
	C353	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-2
	C354	0EQ96101M1	C-EL	YK 16V 100MF-M TP 5X11	1	B-2
	C355	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	A-4
	C357	0EQ96101M1	C-EL	YK 16V 100MF-M TP 5X11	1	B-1
	C358	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-1
	C359	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-2
	C360	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	C-1
	C361	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-4
	C362	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-4
	C363	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-4
	C364	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-4
	C365	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-4
	C369	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	A-2
	C370	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	A-1
	C371	0EK90105ZF	CP-C-CERAMIC	GRM40 16V F 105Z PT	1	A-1
	C373	0GP04104ZF	CP-C-CERAMIC	GRM39 25V F 104Z PT	1	B-2
	C374	0KP04332KB	CP-C-CERAMIC	GRM39 50V B 332K PT	1	R372-GND rear
	C853	0KQ37R47MT	C-EL	MA 50V 0.47MF-M TP 6.3X5	1	A-3
	C854	0KP03271JC	CP-C-CERAMIC	GRM39 50V CH 271J PT	1	A-4
	C855	0KQ371R0MT	C-EL	MA 50V 1MF-M TP 4X5	1	A-4
	C856	0KQ371R0MT	C-EL	MA 50V 1MF-M TP 4X5	1	A-3
	C857	0KP03331JC	CP-C-CERAMIC	GRM39 50V CH 331J PT	1	A-3
	C858	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	A-4
	C859	0KP03471JC	CP-C-CERAMIC	GRM39 50V CH 471J PT	1	A-4
	C862	0KQ961R0M1	C-EL	YK 50V 1.0MF-M TP 5X11	1	A-4
	C863	0EQ96470M1	C-EL	YK 16V 47MF-M TP 5X11	1	A-3
	C864	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	A-3
	C865	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	A-4
	C866	0EQ96470M1	C-EL	YK 16V 47MF-M TP 5X11	1	A-3
	C867	0KQ16104J1	C-PLASTIC	ECQ-V1H 104J L3 (TP)	1	A-3
	C868	0EQ96101M1	C-EL	YK 16V 100MF-M TP 5X11	1	A-3
	C869	0KP13473JT	C-PLASTIC	ECQ-B1H 473J F3 (TP)	1	A-3
	C870	0KQ371R0MT	C-EL	MA 50V 1MF-M TP 4X5	1	A-3
	C871	0IQ374R7MT	C-EL	MA 35V 4.7MF-M TP 4X5	1	A-3
	C872	0KQ16224J1	C-PLASTIC	ECQ-V1H 224J L3 (TP)	1	A-3
	C873	0AQ37101MT	C-EL	MA 6.3V 100MF-M TP 6.3X5	1	A-3
	C874	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	A-3
	C875	0KP04103ZF	CP-C-CERAMIC	GRM39 50V F 103Z PT	1	A-4
	CN201	00J40190A5	CN	B6B-EH	1	E-1
	CN202	09F40146A5	CN	BTFN14P-3RF7	1	D-4
	CN203	09F40146A5	CN	BTFN14P-3RF7	1	B-4
S	CN204	05V03333A1	ASSY HARNESS	ASSY CN204 MA-1790	1	E-1
	CN353	09F40146A5	CN	BTFN14P-3RF7	1	C-4
	D101	08H25035C1	CP-D	DAN217 (T146)	1	A-3
	D102	08H25035C1	CP-D	DAN217 (T146)	1	A-3
	D103	08H25035C1	CP-D	DAN217 (T146)	1	A-3
	D104	00H25737C1	CP-D	DAN202K (T146) (MA-1785)	1	E-3
	D104	00H25737C1	CP-D	DAN202K (T146) (MA-1791)	1	E-3
	D105	00H25737C1	CP-D	DAN202K (T146)	1	B-3
	D106	00H25737C1	CP-D	DAN202K (T146)	1	C-2
	D107	00H25737C1	CP-D	DAN202K (T146)	1	E-3
	D108	08H25113C1	CP-D	DAP202K (T146)	1	C-2
	D109	08H25113C1	CP-D	DAP202K (T146)	1	C-3
	D110	00H25737C1	CP-D	DAN202K (T146)	1	C-1
	D111	00H25737C1	CP-D	DAN202K (T146)	1	C-1
	D112	08H25113C1	CP-D	DAP202K (T146)	1	C-1
	D113	00H25737C1	CP-D	DAN202K (T146)	1	C-2
	D114	08H25035C1	CP-D	DAN217 (T146)	1	B-4
	D115	08H25035C1	CP-D	DAN217 (T146)	1	B-4
	D117	08H25113C1	CP-D	DAP202K (T146)	1	B-3
	D201	08H25035C1	CP-D	DAN217 (T146)	1	C-4

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	D202	08H25035C1	CP-D	DAN217 (T146)	1	C-4
	D203	08H25035C1	CP-D	DAN217 (T146)	1	C-4
	D204	08H25035C1	CP-D	DAN217 (T146)	1	C-4
	D205	08H25035C1	CP-D	DAN217 (T146)	1	C-4
	D206	08H25035C1	CP-D	DAN217 (T146)	1	C-4
	D209	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D212	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D213	08H25119A1	CP-D	HSM83-TL	1	D-1
	D214	08H25119A1	CP-D	HSM83-TL	1	D-1
	D215	08H25119A1	CP-D	HSM83-TL	1	D-1
	D216	08H25119A1	CP-D	HSM83-TL	1	D-1
	D217	08H25119A1	CP-D	HSM83-TL	1	D-1
	D218	08H25119A1	CP-D	HSM83-TL	1	E-1
	D219	00N25030T1	D	1SS244 T-77	1	E-1
	D220	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D221	08H25119A1	CP-D	HSM83-TL	1	D-1
	D222	08H25119A1	CP-D	HSM83-TL	1	E-1
	D223	08H25119A1	CP-D	HSM83-TL	1	D-2
	D224	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D225	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D226	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D227	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D228	00H25737C1	CP-D	DAN202K (T146)	1	C-3
	D229	00H25737C1	CP-D	DAN202K (T146)	1	C-4
	D230	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D231	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D232	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D233	08H25035C1	CP-D	DAN217 (T146)	1	D-2
	D235	08H25035C1	CP-D	DAN217 (T146)	1	B-1
	D237	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D238	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D239	00H25737C1	CP-D	DAN202K (T146)	1	D-2
	D254	00H25737C1	CP-D	DAN202K (T146)	1	E-2
	D255	08H25113C1	CP-D	DAP202K (T146) (MA-1785)	1	D-2
	D255	00H25737C1	CP-D	DAN202K (T146) (MA-1791)	1	D-2
	D351	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D352	00H25737C1	CP-D	DAN202K (T146)	1	A-4
	D353	08H25113C1	CP-D	DAP202K (T146)	1	A-4
	D354	08H25113C1	CP-D	DAP202K (T146)	1	A-4
	D355	00H25737C1	CP-D	DAN202K (T146)	1	D-4
	D357	00H25737C1	CP-D	DAN202K (T146)	1	A-2
	L201	00L41047JC	CP-L-CHOKE	NL252018T-047J	1	D-1
	L202	00L41047JC	CP-L-CHOKE	NL252018T-047J	1	E-1
	L203	00L41047JC	CP-L-CHOKE	NL252018T-047J	1	E-1
	L204	00K00100K0	L-PEAKING	EL0606RA-100K TP	1	D-2
	L205	00K00100K0	L-PEAKING	EL0606RA-100K TP	1	D-1
	L206	08J36127A2	CP-L-CHOKE	BLM21B050S PT	1	D-1
	L207	08J36127A2	CP-L-CHOKE	BLM21B050S PT	1	D-1
	L208	08J36127A2	CP-L-CHOKE	BLM21B050S PT	1	D-1
	L209	00L41470JC	CP-L-CHOKE	NL252018T-470J	1	E-3
	L351	08J36127A1	CP-L-CHOKE	BLM21A121S PT	1	B-1
	NF201	08R50494A1	NF	TX07250NBT	1	C-4
	NF202	08R50494A1	NF	TX07250NBT	1	D-3
	NF203	08R50494A1	NF	TX07250NBT	1	D-3
	NF204	08R50494A1	NF	TX07250NBT	1	B-4
	NF205	08R50494A1	NF	TX07250NBT	1	C-4
	NF206	08R50494A1	NF	TX07250NBT	1	B-4
	NF207	08N50444A1	NF	DSS306-93FZ103N100	1	D-4
	NF208	09F50073T1	NF	TY2E271MCT	1	D-4
	NF209	08N50444A1	NF	DSS306-93FZ103N100	1	D-4
	NF211	08N50444A1	NF	DSS306-93FZ103N100	1	D-4
	NF212	08N50444A1	NF	DSS306-93FZ103N100	1	D-4
	NF251	08N50444A1	NF	DSS306-93FZ103N100	1	E-1
	NF252	08N50444A1	NF	DSS306-93FZ103N100	1	D-4

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	OSC352	08R38539A1	OSC	KHO-HCI-TS 50.000MHZ	1	B-2
	Q103	00H29365T1	CP-TR-DIGITAL	DTC143EK T-146 (MA-1785)	1	B-3
	Q104	0CK43735ZZ	CP-TR	2SC3735 (T1B)	1	C-1
	Q105	0AK41462ZZ	CP-TR	2SA1462 T1B	1	B-1
	Q106	00H29365T1	CP-TR-DIGITAL	DTC143EK T-146	1	B-3
	Q107	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	B-4
	Q108	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	A-3
	Q201	0AK41462ZZ	CP-TR	2SA1462 T1B	1	D-1
	Q202	0AK41462ZZ	CP-TR	2SA1462 T1B	1	D-1
	Q203	0AK41462ZZ	CP-TR	2SA1462 T1B	1	D-1
	Q204	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	D-2
	Q205	0CK42712ZY	CP-TR	2SC2712-Y TE85L	1	E-3
	Q206	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	A-4
	Q207	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	C-2
	Q208	0CK42412KZ	CP-TR	2SC2412K T-146 Q,R,S	1	C-4
	Q209	0AK41037KZ	CP-TR	2SA1037K T-146 Q,R,S	1	C-4
	Q351	00H29340T1	CP-TR-DIGITAL	DTA144EK T-146	1	A-2
	Q352	00H29347T1	CP-TR-DIGITAL	DTA143EK	1	A-4
	Q353	00H29347T1	CP-TR-DIGITAL	DTA143EK	1	A-4
	R101	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	E-2
	R102	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	C-2
	R104	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	D-1
	R105	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	D-1
	R106	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	A-2
	R107	0ZL49433JA	CP-R-CARBON	RK73K2A 1/10W 43K-J TP(TD)	1	D-3
	R110	0ZL49153JA	CP-R-CARBON	RK73K2A 1/10W 15K-J TP(TD)	1	B-3
	R111	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD) (MA-1785)	1	B-3
	R112	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	C-2
	R113	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-4
	R114	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-4
	R115	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	C-4
	R116	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	C-3
	R117	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-2
	R118	0ZL49184JA	CP-R-CARBON	RK73K2A 1/10W 180K-J TP(TD)	1	D-3
	R119	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-3
	R120	0ZL49474JA	CP-R-CARBON	RK73K2A 1/10W 470K-J TP(TD)	1	C-3
	R121	0ZL49105JA	CP-R-CARBON	RK73K2A 1/10W 1.0M-J TP(TD)	1	C-3
	R122	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	C-3
	R123	0ZL49121JA	CP-R-CARBON	RK73K2A 1/10W 120-J TP(TD)	1	C-3
	R124	0ZL49273JA	CP-R-CARBON	RK73K2A 1/10W 27K-J TP(TD)	1	D-3
	R125	0ZL49393JA	CP-R-CARBON	RK73K2A 1/10W 39K-J TP(TD)	1	D-3
	R126	0ZL49000ZA	CP-JP	RK73Z2ATD	1	D-3
	R127	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-3
	R128	0ZL49153JA	CP-R-CARBON	RK73K2A 1/10W 15K-J TP(TD)	1	E-3
	R129	0ZL49393JA	CP-R-CARBON	RK73K2A 1/10W 39K-J TP(TD)	1	E-3
	R130	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	C-1
	R131	0ZL49153JA	CP-R-CARBON	RK73K2A 1/10W 15K-J TP(TD)	1	B-3
	R132	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	B-4
	R133	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	B-4
	R134	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	B-3
	R135	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	B-3
	R136	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	B-3
	R137	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	B-3
	R138	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	B-3
	R140	0ZL49272JA	CP-R-CARBON	RK73K2A 1/10W 2.7K-J TP(TD)	1	B-3
	R141	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	B-3
	R142	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	B-3
	R143	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD) (MA-1785)	1	B-3
	R144	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-3
	R145	08J38247T2	CP-R-THERMISTOR	NT732ATD 100K-K	1	B-3
	R146	0ZL482211F	CP-R-CARBON	RK73H2A 1/10W 2.21K-F TP(TD)	1	B-1
	R148	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-2
	R149	0ZL49105JA	CP-R-CARBON	RK73K2A 1/10W 1.0M-J TP(TD)	1	B-3
	R150	0ZL49562JA	CP-R-CARBON	RK73K2A 1/10W 5.6K-J TP(TD)	1	E-3
	R151	0ZL49821JA	CP-R-CARBON	RK73K2A 1/10W 820-J TP(TD)	1	C-1
	R152	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	C-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R153	0ZL49182JA	CP-R-CARBON	RK73K2A 1/10W 1.8K-J TP(TD)	1	C-2
	R154	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-4
	R155	0ZL49563JA	CP-R-CARBON	RK73K2A 1/10W 56K-J TP(TD)	1	C-4
	R156	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-4
	R157	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD) (MA-1785)	1	C-3
	R158	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD) (MA-1785)	1	C-3
	R159	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	E-3
	R160	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	C-1
	R161	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD) (MA-1791)	1	C-3
	R162	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-4
	R163	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-3
	R164	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	B-1
	R165	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-1
	R166	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	B-1
	R167	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	C-2
	R172	0ZL49105JA	CP-R-CARBON	RK73K2A 1/10W 1.0M-J TP(TD)	1	E-3
	R173	0ZL49621JA	CP-R-CARBON	RK73K2A 1/10W 620-J TP(TD)	1	E-3
	R174	0ZL49512JA	CP-R-CARBON	RK73K2A 1/10W 5.1K-J TP(TD)	1	E-3
	R175	0ZL49000ZA	CP-JP	RK73Z2ATD	1	E-3
	R176	0ZL49474JA	CP-R-CARBON	RK73K2A 1/10W 470K-J TP(TD)	1	B-4
	R177	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	B-4
	R178	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-3
	R179	0ZL49474JA	CP-R-CARBON	RK73K2A 1/10W 470K-J TP(TD)	1	B-4
	R180	0ZL49104JA	CP-R-CARBON	RK73K2A 1/10W 100K-J TP(TD)	1	B-4
	R181	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-3
	R182	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD) (MA-1785)	1	C-3
	R183	0ZL486811F	CP-R-CARBON	RK73H2A 1/10W 6.81K-F TP(TD)	1	C-1
	R185	0ZL49000ZA	CP-JP	RK73Z2ATD	1	C-2
	R187	0ZL49000ZA	CP-JP	RK73Z2ATD	1	C-2
	R188	0ZL49823JA	CP-R-CARBON	RK73K2A 1/10W 82K-J TP(TD) (MA-1785)	1	B-3
	R188	0ZL49823JA	CP-R-CARBON	RK73K2A 1/10W 82K-J TP(TD) (MA-1791)	1	B-3
	R201	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	D-1
	R202	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	D-4
	R203	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R204	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	D-4
	R205	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	D-3
	R206	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R207	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R208	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R209	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R210	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R211	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R212	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	B-4
	R213	0ZL49271JA	CP-R-CARBON	RK73K2A 1/10W 270-J TP(TD)	1	C-3
	R214	0ZL49271JA	CP-R-CARBON	RK73K2A 1/10W 270-J TP(TD)	1	D-3
	R215	0ZL49271JA	CP-R-CARBON	RK73K2A 1/10W 270-J TP(TD)	1	D-3
	R216	0ZL49273JA	CP-R-CARBON	RK73K2A 1/10W 27K-J TP(TD)	1	D-3
	R217	0ZL49153JA	CP-R-CARBON	RK73K2A 1/10W 15K-J TP(TD)	1	D-2
	R222	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	E-2
	R223	0ZL49393JA	CP-R-CARBON	RK73K2A 1/10W 39K-J TP(TD) (MA-1785)	1	D-2
	R223	0ZL49393JA	CP-R-CARBON	RK73K2A 1/10W 39K-J TP(TD) (MA-1791)	1	D-2
	R224	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD) (MA-1785)	1	D-2
	R224	0ZL49152JA	CP-R-CARBON	RK73K2A 1/10W 1.5K-J TP(TD) (MA-1791)	1	D-2
	R225	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	D-2
	R226	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD) (MA-1785)	1	D-2
	R226	0ZL49272JA	CP-R-CARBON	RK73K2A 1/10W 2.7K-J TP(TD) (MA-1791)	1	D-2
	R227	0ZL49824JA	CP-R-CARBON	RK73K2A 1/10W 820K-J TP(TD)	1	D-1
	R228	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	C-2
	R229	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-2
	R230	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-2
	R231	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-2
	R232	0ZL49470JA	CP-R-CARBON	RK73K2A 1/10W 47-J TP(TD)	1	D-2
	R233	0ZL49470JA	CP-R-CARBON	RK73K2A 1/10W 47-J TP(TD)	1	D-2
	R234	0ZL49470JA	CP-R-CARBON	RK73K2A 1/10W 47-J TP(TD)	1	D-1
	R235	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1
	R236	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R237	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1
	R238	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1
	R239	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1
	R240	0BL49821JA	CP-R-CARBON	RK73K2E 1/4W 820-J TP(TD)	1	D-1
	R241	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	D-1
	R242	0ZL49271JA	CP-R-CARBON	RK73K2A 1/10W 270-J TP(TD)	1	D-1
	R243	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	D-1
	R244	0ZL49151JA	CP-R-CARBON	RK73K2A 1/10W 150-J TP(TD)	1	D-1
	R245	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	D-1
	R246	0ZL49121JA	CP-R-CARBON	RK73K2A 1/10W 120-J TP(TD)	1	D-1
	R247	0ZL49114JA	CP-R-CARBON	RK73K2A 1/10W 110K-J TP(TD)	1	D-1
	R248	0ZL49114JA	CP-R-CARBON	RK73K2A 1/10W 110K-J TP(TD)	1	D-1
	R249	0ZL49114JA	CP-R-CARBON	RK73K2A 1/10W 110K-J TP(TD)	1	D-1
	R250	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD) (MA-1785)	1	E-1
	R250	0ZL49912JA	CP-R-CARBON	RK73K2A 1/10W 9.1K-J TP(TD) (MA-1791)	1	E-1
	R252	0ZL49822JA	CP-R-CARBON	RK73K2A 1/10W 8.2K-J TP(TD)	1	E-1
	R254	0ZL49822JA	CP-R-CARBON	RK73K2A 1/10W 8.2K-J TP(TD) (MA-1791)	1	E-1
	R254	0ZL49912JA	CP-R-CARBON	RK73K2A 1/10W 9.1K-J TP(TD) (MA-1785)	1	E-1
	R256	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-1
	R257	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-1
	R258	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-1
	R259	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-2
	R260	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-2
	R261	0ZL49333JA	CP-R-CARBON	RK73K2A 1/10W 33K-J TP(TD)	1	E-2
	R262	0ZL49123JA	CP-R-CARBON	RK73K2A 1/10W 12K-J TP(TD)	1	E-2
	R263	0ZL49123JA	CP-R-CARBON	RK73K2A 1/10W 12K-J TP(TD)	1	E-2
	R264	0ZL49123JA	CP-R-CARBON	RK73K2A 1/10W 12K-J TP(TD)	1	E-2
	R265	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	D-2
	R266	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	D-2
	R267	0ZL49223JA	CP-R-CARBON	RK73K2A 1/10W 22K-J TP(TD)	1	D-2
	R268	0ZL49000ZA	CP-JP	RK73Z2ATD	1	D-3
	R269	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	D-3
	R270	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	D-3
	R271	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	D-3
	R272	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	D-2
	R273	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	D-2
	R274	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	D-2
	R275	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	D-2
	R276	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	D-2
	R277	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	D-2
	R278	0ZL49474JA	CP-R-CARBON	RK73K2A 1/10W 470K-J TP(TD)	1	E-1
	R279	0ZL49224JA	CP-R-CARBON	RK73K2A 1/10W 220K-J TP(TD)	1	E-1
	R280	0ZL49224JA	CP-R-CARBON	RK73K2A 1/10W 220K-J TP(TD)	1	D-1
	R281	0ZL49224JA	CP-R-CARBON	RK73K2A 1/10W 220K-J TP(TD)	1	D-1
	R282	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-4
	R284	0ZL493R9JA	CP-R-CARBON	RK73M2A 1/10W 3.9-J TP(TD)	1	E-2
	R285	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	E-3
	R286	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	E-3
	R287	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	C-1
	R288	0ZL49474JA	CP-R-CARBON	RK73K2A 1/10W 470K-J TP(TD)	1	C-1
	R289	0BL49220JA	CP-R-CARBON	RK73K2E 1/4W 22-J TP(TD)	1	D-2
	R290	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	E-2
	R291	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	C-4
	R292	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	C-4
	R293	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	C-4
	R294	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD) (MA-1791)	1	D-2
	R295	0ZL49000ZA	CP-JP	RK73Z2ATD (MA-1791)	1	D-2
	R302	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R304	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R305	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-1
	R307	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	D-1
	R317	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	A-1
	R319	0ZL49184JA	CP-R-CARBON	RK73K2A 1/10W 180K-J TP(TD)	1	A-3
	R320	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-2
	R321	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	B-2

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	R322	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-2
	R323	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-2
	R324	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-3
	R325	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	E-3
	R326	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-1
	R327	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD) (MA-1791)	1	B-1
	R328	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD) (MA-1785)	1	A-1
	R329	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-1
	R336	0ZL49682JA	CP-R-CARBON	RK73K2A 1/10W 6.8K-J TP(TD)	1	E-2
	R351	0ZM43102JT	CP-R-NETWORK	CN2A4 TE 1/10W 1K-J	1	A-2
	R352	0ZL481001F	CP-R-CARBON	RK73H2A 1/10W 1.00K-F TP(TD)	1	B-2
	R353	0ZL481001F	CP-R-CARBON	RK73H2A 1/10W 1.00K-F TP(TD)	1	A-2
	R358	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	A-2
	R359	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-2
	R360	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-2
	R361	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-2
	R362	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	A-1
	R363	0ZM43221JT	CP-R-NETWORK	CN2A4 TE 1/10W 220-J	1	A-2
	R364	0ZM43221JT	CP-R-NETWORK	CN2A4 TE 1/10W 220-J	1	B-1
	R365	0ZM43221JT	CP-R-NETWORK	CN2A4 TE 1/10W 220-J	1	A-1
	R366	0ZM43102JT	CP-R-NETWORK	CN2A4 TE 1/10W 1K-J	1	B-2
	R367	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	B-2
	R368	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	B-1
	R369	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	B-4
	R370	0ZL49220JA	CP-R-CARBON	RK73K2A 1/10W 22-J TP(TD)	1	A-4
	R372	0ZM43221JT	CP-R-NETWORK	CN2A4 TE 1/10W 220-J	1	B-1
	R373	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	B-1
	R374	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R375	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R376	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R377	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	A-4
	R378	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-4
	R379	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	C-4
	R380	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-2
	R381	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-2
	R382	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	D-4
	R383	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-3
	R385	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-4
	R386	0ZL49222JA	CP-R-CARBON	RK73K2A 1/10W 2.2K-J TP(TD)	1	B-2
	R387	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-3
	R388	0ZL49101JA	CP-R-CARBON	RK73K2A 1/10W 100-J TP(TD)	1	D-3
	R389	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-2
	R390	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-2
	R391	0ZM43222JT	CP-R-NETWORK	CN2A4 TE 1/10W 2.2K-J	1	A-1
	R392	0ZL49154JA	CP-R-CARBON	RK73K2A 1/10W 150K-J TP(TD)	1	D-3
	R393	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-1
	R394	0ZL49154JA	CP-R-CARBON	RK73K2A 1/10W 150K-J TP(TD)	1	D-4
	R395	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-1
	R396	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-2
	R397	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-2
	R398	0ZL49103JA	CP-R-CARBON	RK73K2A 1/10W 10K-J TP(TD)	1	A-1
	R399	0ZL49473JA	CP-R-CARBON	RK73K2A 1/10W 47K-J TP(TD)	1	E-3
	R851	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-4
	R852	0ZL49202JA	CP-R-CARBON	RK73K2A 1/10W 2.0K-J TP(TD)	1	A-4
	R853	0ZL49182JA	CP-R-CARBON	RK73K2A 1/10W 1.8K-J TP(TD)	1	A-4
	R854	0ZL49472JA	CP-R-CARBON	RK73K2A 1/10W 4.7K-J TP(TD)	1	A-4
	R855	0ZL49221JA	CP-R-CARBON	RK73K2A 1/10W 220-J TP(TD)	1	A-4
	R856	0ZL49102JA	CP-R-CARBON	RK73K2A 1/10W 1.0K-J TP(TD)	1	A-4
	R857	0ZL49622JA	CP-R-CARBON	RK73K2A 1/10W 6.2K-J TP(TD)	1	A-3
	R859	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	A-3
	R894	0ZL49561JA	CP-R-CARBON	RK73K2A 1/10W 560-J TP(TD)	1	E-4
	SW201	08R45381A1	SW-SLIDE	SSSU0-4-2 (L=6) *MA-21A1*	1	B-4
	U101	09F26046T1	CP-IC	BA7658FS-E2 (MA-1785)	1	C-3
	U101	09F26345T1	CP-IC	BA7658AFS-E2 (MA-1791)	1	C-3
	U102	00R26144A2	CP-IC	TC74HC4053AF-EL	1	D-3
	U102	09F27347T1	CP-IC	HD74HC4053FPEL	OR	D-3

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	U103	09F27047T1	CP-IC	M52347FP	1	E-3
	U104	09F27044T1	CP-IC	09F27044T1-E2	1	B-3
	U105	00F27001A5	CP-IC	TC74HC00AF-EL	1	B-3
	U105	09F27049T1	CP-IC	SN74HC00ANS	OR	B-3
	U106	00F27001A5	CP-IC	TC74HC00AF-EL	1	C-1
	U106	09F27049T1	CP-IC	SN74HC00ANS	OR	C-1
	U107	00F27001A5	CP-IC	TC74HC00AF-EL	1	C-1
	U107	09F27049T1	CP-IC	SN74HC00ANS	OR	C-1
	U108	09F27242T1	CP-IC	TC7W241FU (TE12L)	1	D-3
	U109	09F27050T1	CP-IC	CD0007AM	1	E-3
	U110	08N27682T1	CP-IC	TC74HC14AF-EL	1	C-1
	U201	09F26052A1	IC	LM2283N	1	D-2
	U202	09F26053A1	IC	VP453	1	C-1
	(U202)	0FF613012D	SCREW	SCREW-SEMS-P-PAN M3X12(W/SW) ZN/FE	2	C-1
	(U202)	05C02854A1	RADIATOR	RADIATOR-V	1	C-1
	U203	08R26255A1	IC	STK190-020	1	E-2
	U204	08R27247T1	CP-IC	M62352FP	1	E-2
	U351	05V03492A1	CP-IC	ASSY MICON 711 (MA-1785)	1	A-1
	U351	09F27286A1	CP-IC	M38067MC-209 FP (MA-1791)	1	A-1
	U351	05V03454A1	CP-IC	ASSY MICON 704 (MA-1791)	OR	A-1
	U352	08R27453A1	CP-IC	SLA2019	1	B-2
	U353	09F27058T1	CP-IC	24LC16BT (MA-1785)	1	A-2
	U353	09F27057T1	CP-IC	NM24C16EM8 (MA-1791)	1	A-2
	U354	08J26126A1	CP-IC	M51951AML-600C-A	1	A-2
	U355	09F27059T1	CP-IC	UPD4721GS-GJG-E2	1	A-4
	U356	08F27459A2	CP-IC	TC74HC32AF-EL	1	C-2
	U356	09F27060T1	CP-IC	SN74HC32ANS	OR	C-2
	U358	08R26583A1	IC	24LC21/P	1	D-3
	U851	09F27061T1	CP-IC	CM0002AM	1	A-1
	XB351	08N38581A1	OSC	CST 8.00MTW	1	A-2
	ZD101	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-4
	ZD102	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-4
	ZD103	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	C-4
	ZD104	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	C-3
	ZD105	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	E-3
	ZD106	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	C-2
	ZD107	08H25124B1	CP-D-ZENER	MA8043-M (TX) (MA-1785)	1	D-3
	ZD351	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-2
	ZD352	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-2
	ZD353	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-1
	ZD355	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	B-2
	ZD357	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	B-2
	ZD358	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	B-2
	ZD359	08H25129B9	CP-D-ZENER	MA8150-M (TX)	1	A-4
	ZD360	08H25129B9	CP-D-ZENER	MA8150-M (TX)	1	A-4
	ZD361	08H25122B7	CP-D-ZENER	MA8030-H (TX)	1	E-3
	ZD362	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-4
	ZD363	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	D-4
	ZD364	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-1
	ZD365	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	A-1
	ZD366	08H25125B8	CP-D-ZENER	MA8062-M (TX)	1	B-1
	ZD367	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	B-1
	ZD368	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	B-1
	ZZ201	05B01065A1	SHIELD	SHIELD-V MA1790	1	
	ZZ201	35B01065A2	SHIELD	SHIELD-V MA1790	OR	
	ZZ202	0FN933008D	SCREW	B-TITE-SEMS-P-BIND 3X8 ZN/FE	3	
	ZZ203	08J44442A1	TAB	43003	1	
		05V03371A1	ASS'Y-CN201		1	
		05B01064B1	BRACKET-V		1	
		35B01064B2	BRACKET-V	(MA-1785)	OR	
		08N54105A1	CLAMPER		1	
		08N54089A1	CLAMPER		OR	
		09F50102A1	FERRITE-CORE		1	
		0FN933008D	SCREW	B-TITE-SEMS-P-BIND 3X8 Zn/Fe	6	
		05D07829A1	SPRING-EARTH		1	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC

3. PCB-T SW

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
	AH841	05V03324A1	ASSY HARNESS	ASSY HARNESS SW1	1	
	(AH841)	09F50102A1	FERRITE-CORE	FERRITE-CORE ZCAT2017-0930-M	1	
	(AH841)	08N54105A1	CLAMPER	PLT1M	2	
	(AH841)	08N54089A1	CLAMPER	T18R	OR	
	AH842	05V03495A1	ASSY HARNESS	ASSY HARNESS SP	1	
	(AH842)	08R50523A1	FERRITE-CORE	ZCAT1518-0730-M	1	
	(AH842)	08N54105A1	CLAMPER	PLT1M	1	
	(AH842)	08N54089A1	CLAMPER	T18R	OR	
	C841	0KK90104ZF	CP-C-CERAMIC	GRM40 50V F 104Z PT	1	
	C842	0KK90104ZF	CP-C-CERAMIC	GRM40 50V F 104Z PT	1	
	C844	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	
	C845	0KK90103ZF	CP-C-CERAMIC	GRM40 50V F 103Z PT	1	
	CN841	00J40644A6	CN	S7B-PH-K-S	1	
	CN842	00J40642A1	CN	B2B-PH-K-S	1	
	D841	00R28134A1	D-LED	TLYG116	1	
	R841	0ZL483011F	CP-R-CARBON	RK73H2A 1/10W 3.01K-F TP(TD)	1	
	R842	0ZL483320F	CP-R-CARBON	RK73H2A 1/10W 332-F TP(TD)	1	
	R843	0ZL481001F	CP-R-CARBON	RK73H2A 1/10W 1.00K-F TP(TD)	1	
	R844	0ZL482211F	CP-R-CARBON	RK73H2A 1/10W 2.21K-F TP(TD)	1	
	R845	0ZL481001F	CP-R-CARBON	RK73H2A 1/10W 1.00K-F TP(TD)	1	
	R846	0ZL49331JA	CP-R-CARBON	RK73K2A 1/10W 330-J TP(TD)	1	
	R847	0ZL49181JA	CP-R-CARBON	RK73K2A 1/10W 180-J TP(TD)	1	
	SW841	09F45106A1	SW	STICK-SW	1	
	SW842	00R45895T2	SW-TACT	SKHVBE	1	
	SW843	00R45895T2	SW-TACT	SKHVBE	1	
	ZD841	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	
	ZD842	08H25124B9	CP-D-ZENER	MA8051-M (TX)	1	

4. PCB-T ANT

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
		05V03474A1	ASSY HARANESS	ASSY HARNESS ANT		
		05D07404A1	CUSHION			
		09F54263A1	CLAMPER	T18S		

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC

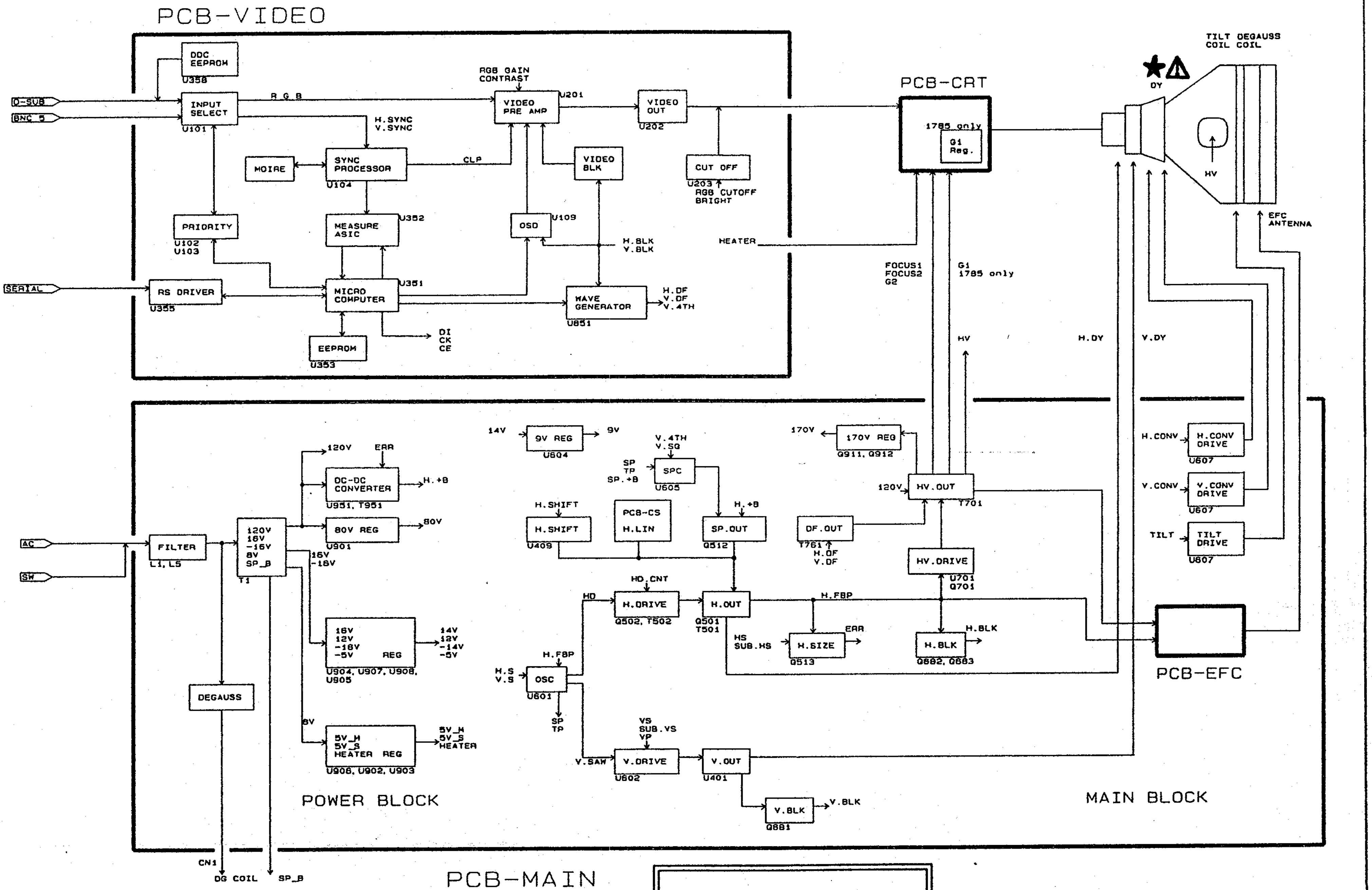
5. OTHERS (F56)

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
S		00R09580C	AC CORD	AC POWER CORD (for ED)	1	
S		08J09242A1	AC CORD	AC POWER CORD (for ED)	OR	
S		00R09582C	AC CORD	AC POWER CORD (for ES)	#	
S		08J09243A1	AC CORD	AC POWER CORD (for ES)	OR	
S		08F09171B1	AC CORD	AC POWER CORD (for AS)	#	
S		09F09140B1	AC CORD	AC POWER CORD (for UK, ER, EH)	#	
S		38R09035A1	AC CORD	AC POWER CORD (for UK, ER, EH)	OR	
		05D07747A1	AR-CLOTH		1	
		39F40367A1	CABLE-CONNECTOR	MD-C87	1	
		09F40012A1	CABLE-CONNECTOR	MD-C87	OR	
		05B01086A1	CUSHION	(4 pieces)	1	
		05B01125A1	CUSHION	(4 pieces)	OR	
		39F19314A1	FLOPPY	3.5" FD INFFILE1-E	1	
		09F19314A1	FLOPPY	MF2-HD INFFILE1-E	OR	
		05D05394A1	LABEL	BAR-CODE-LABEL	1	
		05C03108A1	PACKING CASE	PACKING CASE-E	1	
		06D00446C	PACKING-BAG		1	
		05D04244C	PACKING-BAG-SET		1	
		05D07620B1	Q.R	Q.R-MA1790-E	1	
		05D07742B1	R.C	REGISTRATION-CARD-E	1	
		05D07727B1	SHEET	INF-SHEET-E	1	
		05C03109A1	STICKER	STICKER-MA1785-E	1	
		05D07798B1	U.M	U.M-MA1785-E	1	
S	(FRONT)	05C02895A3	ASSY-FRONT-PANEL		1	
	(FRONT)	08N54105A1	CLAMPER	PLT1M	4	
	(FRONT)	08N54089A1	CLAMPER	T18R	OR	
	(FRONT)	05C02840A1	CONTROL-KEY		1	
	(FRONT)	0FN965025Z	SCREW	TAP-SCREW-SEMS-SP 5X25 Zn/Fe	4	
	(FRONT)	0FJ923012D	SCREW	TAP-TITE-P-BIND 3X12 B-TYPE Zn/Fe	2	
	(FRONT)	05D07802A2	WASHER	6.5X18X1.8	4	
S		05U02451A1	ASS'Y-COIL		1	
S	(COIL)	09F16343B1	ASS'Y-ADG-COIL		1	
S	(COIL)	39F16343A1	ASS'Y-ADG-COIL		OR	
	(COIL)	05U02289A1	ASS'Y-ROTATION-COIL		1	
	(COIL)	05F16703A1	ASS'Y-ROTATION-COIL		OR	
	(COIL)	35F16703A1	ASS'Y-ROTATION-COIL		OR	
	(COIL)	09F16005A1	ASS'Y-ROTATION-COIL		OR	
	(COIL)	08N54105A1	CLAMPER	PLT1M	2	
	(COIL)	08N54089A1	CLAMPER	T18R	OR	
	(COIL)	05D07695A1	DG-CUSHION		2	
		05U02438A1	ASSY SIDE-FRAME		2	
	(S-FRAME)	05B01074A1	SIDE-FRAME		1	
	(S-FRAME)	05D07077A1	SPRING-EARTH		2	
XS	(CRT)	09F31187A1	CRT/w DY	M41KSX683X91(U)	1	
	(CRT)	05D07490A1	LABEL	HV-WARNING-LABEL	1	
	(CRT)	08F50377A1	MAGNET		1	
	(CRT)	08J50566A1	MAGNET	SPOILER-B	3	
	(CHASSIS)	09F51156A1	ANODE RING	ANR-65	2	
S	(CHASSIS)	05C02882A2	ASSY-TILT		1	
S	(CHASSIS)	35C02882C	ASSY-TILT		OR	
	(CHASSIS)	08N54105A1	CLAMPER	PLT1M	3	
	(CHASSIS)	08N54089A1	CLAMPER	T18R	OR	
	(CHASSIS)	05C02923B1	COVER-B		2	
	(CHASSIS)	08N50391A1	FERRITE-CORE	TFC-25-15-12	1	
	(CHASSIS)	0FN933008	SCREW	B-TITE-SEMS-P-BIND 3X8 Zn/Fe	5	
	(CHASSIS)	0FJ924016N	SCREW	TAP-TITE-P-BIND 4X16 B-TYPE Ni/Fe	2	
	(CHASSIS)	0FJ653005D	SCREW	TAP-TITE-P-PAN 3X5 B-TYPE Zn/Fe	2	

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
S	(DISPLAY)	05A00682A1	BACK-COVER		1	
	(DISPLAY)	05D07085A1	CAUTION-27K		1	
	(DISPLAY)	05D05660A1	LABEL	CHASSIS-LABEL	1	
S	(DISPLAY)	05D07795A1	N.P	N.P-MA1785-E	1	
	(DISPLAY)	05B01071B1	REAR-SHIELD		1	
	(DISPLAY)	0FN933008	SCREW	B-TITE-SEMS-P-BIND 3X8 Zn/Fe	9	
	(DISPLAY)	0FJ924016N	SCREW	TAP-TITE-P-BIND 4X16 B-TYPE Ni/Fe	2	
	(DISPLAY)	05A00692B2	SIDE-SHIELD-L		1	
	(DISPLAY)	05A00692B1	SIDE-SHIELD-R		1	
	(DISPLAY)	05A00691B1	TOP-SHIELD		1	

6. ASSEMBLED PARTS (F56)

XS	SYMB.	CODE	NAME	DESCRIPTION	Q'TY	LOC
		05U02431A1	ASS'Y MAIN UNIT			
		---	PCB-MAIN			
		05U02409A1	PCB-T EFC			
		05U02412A1	PCB-T CS			
		05U02413A1	PCB-T CRT			
		05U02432A1	ASS'Y VIDEO UNIT			
		---	PCB-VIDEO			
		05T01182A1	PCB-T SW			
		05U02417A1	PCB-T ANT			
XS		09F31187A1	CRT/w DY	M41KSX683X91(U)		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U358
D-SUB
BNC 5
INPUT SELECT
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R G B
H.SYNC
V.SYNC
RGB GAIN
CONTRAST
VIDEO PRE AMP
U201
VIDEO OUT
U202
MOIRE
SYNC PROCESSOR
U104
CLP
VIDEO BLK
CUT OFF
U203
RGB CUTOFF
BRIGHT
PRIORITY
U102
U103
MEASURE ASIC
U352
OSD
U109
H.BLK
V.BLK
HEATER
SERIAL
RS DRIVER
U355
MICRO COMPUTER
U351
WAVE GENERATOR
U851
H.DF
V.DF
V.4TH
EEPROM
U353
DI
CK
CE
PCB-CRT
1785 only
G1 Reg.
TILT DEGAUSS
COIL COIL
DY
HV
EFC ANTENNA
FOCUS1
FOCUS2
G2
G1
1785 only
HV
H.DY
V.DY
PCB-MAIN
POWER BLOCK
MAIN BLOCK
AC
SW
FILTER
L1, L5
120V
16V
-16V
8V
SP_B
T1
120V
ERR
DC-DC CONVERTER
U951, T951
H.+B
80V REG
U901
80V
16V
-16V
16V
12V
-16V
-5V
REG
U904, U907, U908,
U905
14V
12V
-14V
-5V
DEGAUSS
8V
5V_M
5V_S
HEATER REG
U906, U902, U903
5V_M
5V_S
HEATER
CN1
DG COIL
SP_B
14V
9V REG
U604
9V
V.4TH
V.SG
SP
TP
SP.+B
SPC
U605
H.SHIFT
H.SHIFT
U409
PCB-CS
H.LIN
H.+B
SP.OUT
Q512
DF.OUT
T761
H.DF
V.DF
170V
170V REG
Q911, Q912
120V
HV.OUT
T701
HV.DRIVE
U701
Q701
HD.CNT
HD
H.DRIVE
Q502, T502
H.OUT
Q501
T501
H.FBP
HS
SUB.HS
H.SIZE
Q513
ERR
H.BLK
Q682, Q683
H.BLK
H.FBP
H.S
V.S
OSC
U601
SP
TP
VS
SUB.VS
VP
V.SAW
V.DRIVE
U602
V.OUT
U401
V.BLK
Q881
V.BLK
H.CONV
H.CONV DRIVE
U607
V.CONV
V.CONV DRIVE
U607
TILT
TILT DRIVE
U607
PCB-EFC

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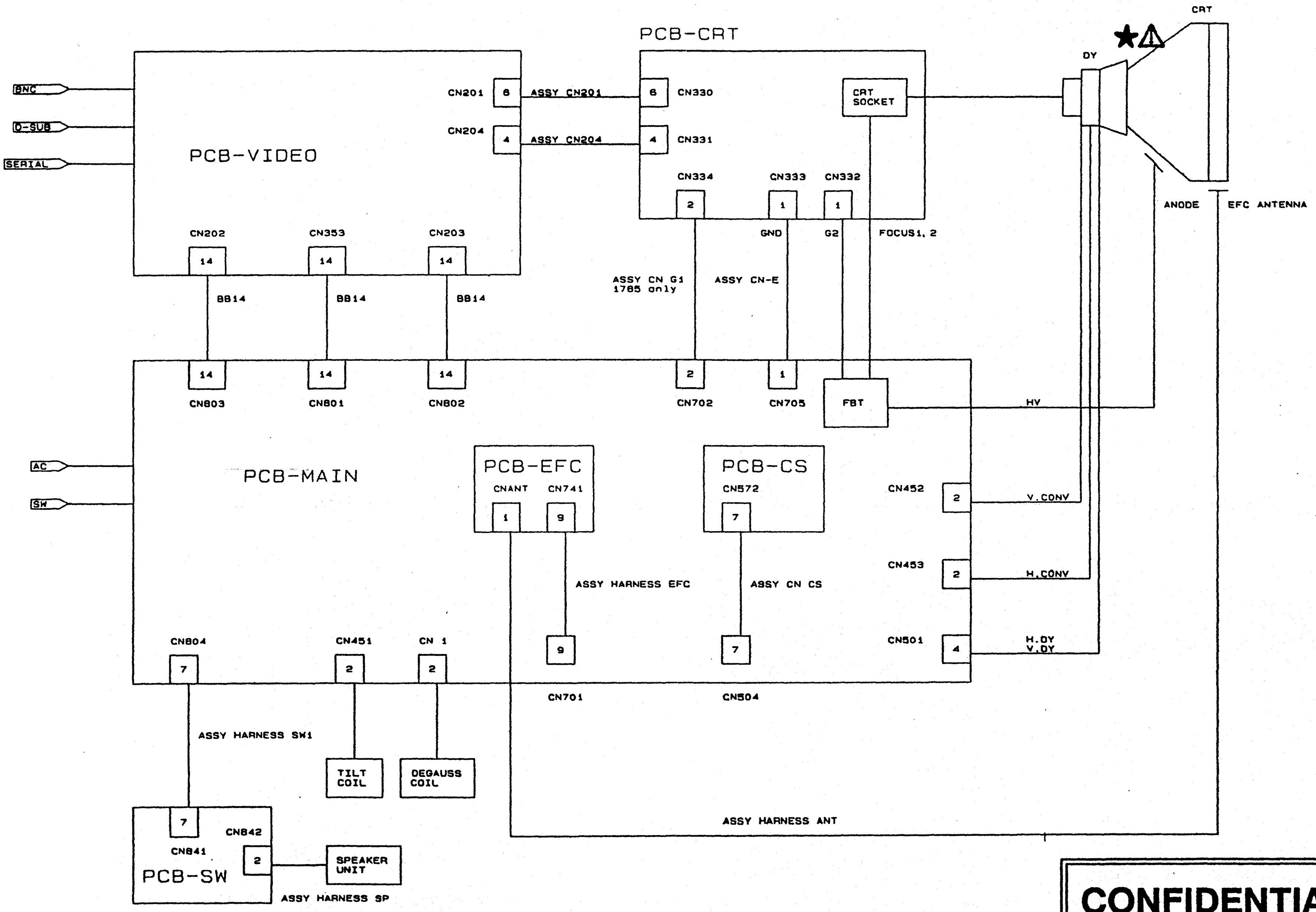
MA-1785/1791 BLOCK DIAGRAM


PCB-CRT
CRT
DY
BNC
D-SUB
SERIAL
PCB-VIDEO
CN201
6
ASSY CN201
6
CN330
CRT SOCKET
CN204
4
ASSY CN204
4
CN331
CN334
CN333
CN332
2
1
1
ANODE
EFC ANTENNA
CN202
CN353
CN203
14
14
14
GND
G2
FOCUS1, 2
BB14
BB14
BB14
ASSY CN G1
1785 only
ASSY CN-E
14
14
14
2
1
CN803
CN801
CN802
CN702
CN705
FBT
HV
AC
SW
PCB-MAIN
PCB-EFC
CNANT
CN741
1
9
PCB-CS
CN572
7
CN452
2
V.CONV
CN453
2
H.CONV
ASSY HARNESS EFC
ASSY CN CS
CN804
CN451
CN 1
7
2
2
9
7
CN501
4
H.DY
V.DY
CN701
CN504
ASSY HARNESS SW1
TILT COIL
DEGAUSS COIL
ASSY HARNESS ANT
7
CN842
CN841
PCB-SW
2
SPEAKER UNIT
ASSY HARNESS SP

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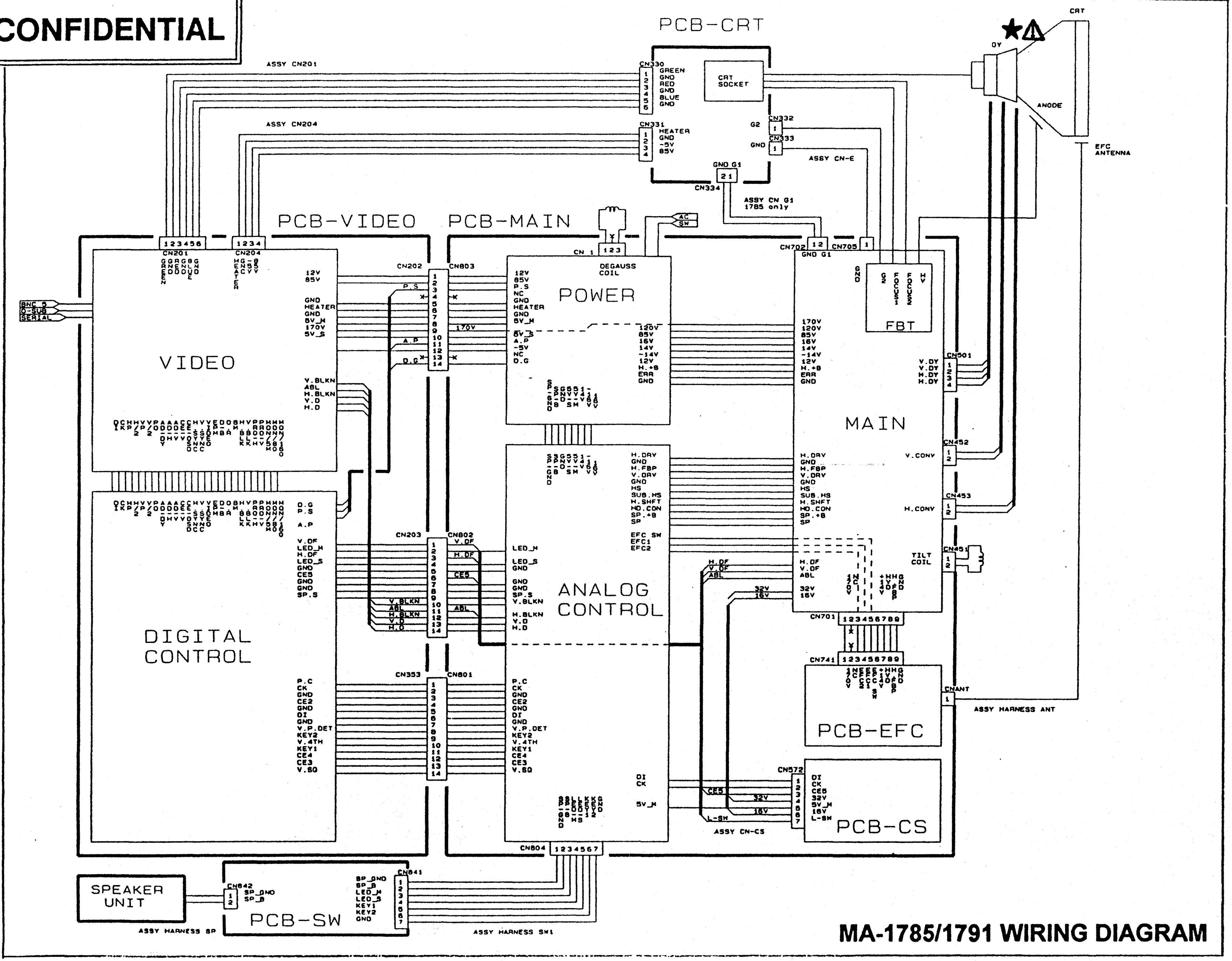
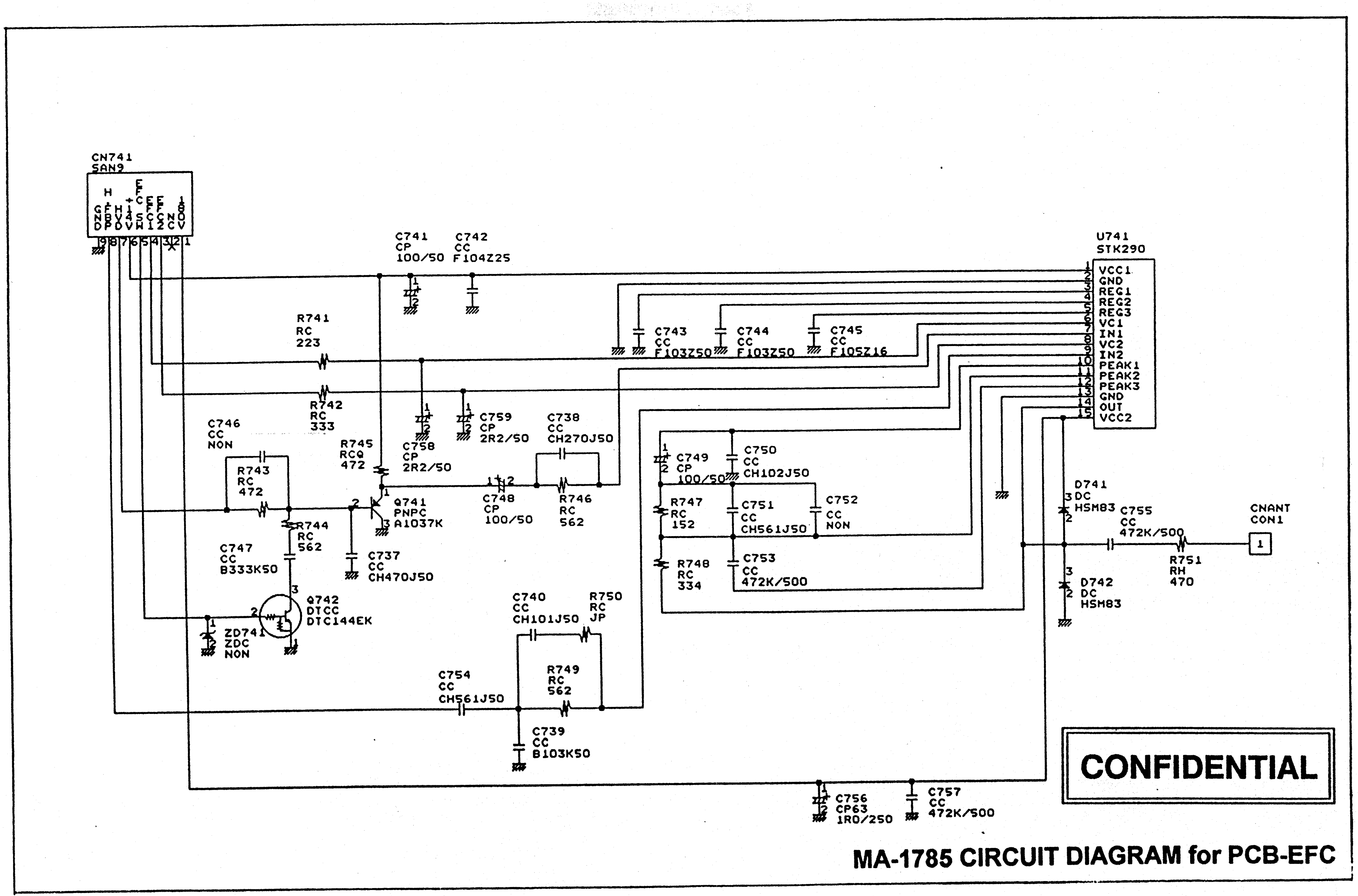
MA-1785/1791 CONNECTION DIAGRAM

CONFIDENTIAL



PCB-CRT
CRT
DY
ANODE
EFC ANTENNA
ASSY CN201
CN330
GREEN
GND
RED
GND
BLUE
GND
CRT SOCKET
ASSY CN204
CN331
HEATER
GND
-5V
85V
G2
CN332
GND
CN333
ASSY CN-E
GND G1
CN334
ASSY CN G1 1785 only
PCB-VIDEO
PCB-MAIN
AC
SW
CN 1
CN201
CN204
CN702
GND G1
CN705
DEGAUSS COIL
POWER
VIDEO
BNC_S
D-SUB
SERIAL
12V
85V
GND
HEATER
GND
8V_H
170V
5V_S
V.BLKN
ABL
H.BLKN
V.D
H.D
CN202
CN803
P.S
A.P
D.G
170V
12V
85V
P.S
NC
GND
HEATER
GND
8V_H
5V_S
A.P
-5V
NC
D.G
120V
85V
16V
14V
-14V
12V
H.+B
ERR
GND
170V
120V
85V
16V
14V
-14V
12V
H.+B
ERR
GND
FBT
G2
FOCUS1
FOCUS2
HV
GND
MAIN
CN501
V.DY
V.DY
H.DY
H.DY
CN452
V.CONV
CN453
H.CONV
CN451
TILT COIL
H.DRV
GND
H.FBP
V.DRV
GND
HS
SUB.HS
H.SHFT
HD.CON
SP.+B
SP
EFC SW
EFC1
EFC2
DIGITAL CONTROL
ANALOG CONTROL
D.G
P.S
A.P
V.DF
LED_H
H.DF
LED_S
GND
CE5
GND
GND
SP.S
CN203
CN802
V.DF
H.DF
CE5
ABL
V.BLKN
ABL
H.BLKN
V.D
H.D
LED_H
LED_S
GND
GND
GND
SP.S
V.BLKN
H.BLKN
V.D
H.D
H.DF
V.DF
ABL
32V
16V
CN701
CN741
CNANT
ASSY HARNESS ANT
PCB-EFC
CN353
CN801
P.C
CK
GND
CE2
GND
DI
GND
V.P.DET
KEY2
V.4TH
KEY1
CE4
CE3
V.SQ
DI
CK
5V_H
CN572
DI
CK
CE5
32V
5V_H
16V
L-SW
CE5
32V
16V
L-SW
ASSY CN-CS
PCB-CS
CN804
SPEAKER UNIT
CN842
SP_GND
SP_B
PCB-SW
CN841
SP_GND
SP_B
LED_H
LED_S
KEY1
KEY2
GND
ASSY HARNESS SP
ASSY HARNESS SW1

MA-1785/1791 WIRING DIAGRAM


CN741
SAN9
GND
H FBP
HVD
+14V
EFCSW
EFC1
EFC2
NC
18OV
9 8 7 6 5 4 3 2 1
C741
CP
100/50
C742
CC
F104Z25
U741
STK290
VCC1
GND
REG1
REG2
REG3
VC1
IN1
VC2
IN2
PEAK1
PEAK2
PEAK3
GND
OUT
VCC2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
R741
RC
223
C743
CC
F103Z50
C744
CC
F103Z50
C745
CC
F105Z16
R742
RC
333
C759
CP
2R2/50
C738
CC
CH270J50
C746
CC
NON
R745
RCQ
472
C758
CP
2R2/50
C749
CP
100/50
C750
CC
CH102J50
R743
RC
472
C748
CP
100/50
R746
RC
562
Q741
PNPC
A1037K
R747
RC
152
C751
CC
CH561J50
C752
CC
NON
D741
DC
HSM83
C755
CC
472K/500
CNANT
CON1
R744
RC
562
C747
CC
B333K50
C737
CC
CH470J50
R748
RC
334
C753
CC
472K/500
R751
RH
470
D742
DC
HSM83
Q742
DTCC
DTC144EK
ZD741
ZDC
NON
C740
CC
CH101J50
R750
RC
JP
C754
CC
CH561J50
R749
RC
562
C739
CC
B103K50
C756
CP63
1R0/250
C757
CC
472K/500

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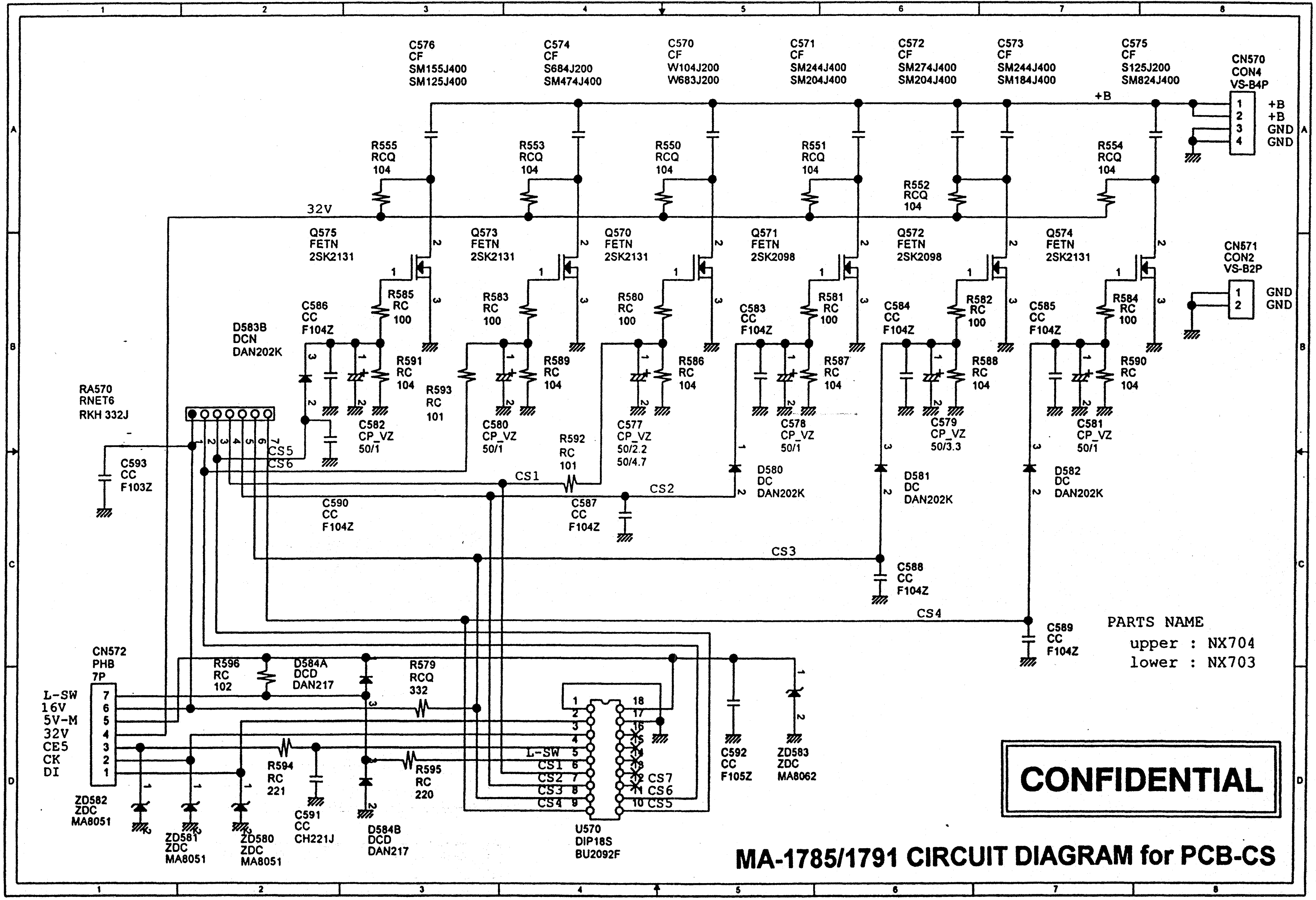
MA-1785 CIRCUIT DIAGRAM for PCB-EFC


1
2
3
4
5
6
7
8
A
B
C
D
C576
CF
SM155J400
SM125J400
C574
CF
S684J200
SM474J400
C570
CF
W104J200
W683J200
C571
CF
SM244J400
SM204J400
C572
CF
SM274J400
SM204J400
C573
CF
SM244J400
SM184J400
C575
CF
S125J200
SM824J400
CN570
CON4
VS-B4P
+B
+B
GND
GND
R555
RCQ
104
R553
RCQ
104
R550
RCQ
104
R551
RCQ
104
R552
RCQ
104
R554
RCQ
104
32V
Q575
FETN
2SK2131
Q573
FETN
2SK2131
Q570
FETN
2SK2131
Q571
FETN
2SK2098
Q572
FETN
2SK2098
Q574
FETN
2SK2131
CN571
CON2
VS-B2P
GND
GND
R585
RC
100
R583
RC
100
R580
RC
100
R581
RC
100
R582
RC
100
R584
RC
100
C586
CC
F104Z
C583
CC
F104Z
C584
CC
F104Z
C585
CC
F104Z
D583B
DCN
DAN202K
R591
RC
104
R589
RC
104
R586
RC
104
R587
RC
104
R588
RC
104
R590
RC
104
R593
RC
101
RA570
RNET6
RKH 332J
C582
CP_VZ
50/1
C580
CP_VZ
50/1
C577
CP_VZ
50/2.2
50/4.7
C578
CP_VZ
50/1
C579
CP_VZ
50/3.3
C581
CP_VZ
50/1
R592
RC
101
CS5
CS6
CS1
CS2
CS3
CS4
C593
CC
F103Z
D580
DC
DAN202K
D581
DC
DAN202K
D582
DC
DAN202K
C590
CC
F104Z
C587
CC
F104Z
C588
CC
F104Z
C589
CC
F104Z
CN572
PHB
7P
L-SW
16V
5V-M
32V
CE5
CK
DI
R596
RC
102
D584A
DCD
DAN217
R579
RCQ
332
R594
RC
221
R595
RC
220
C591
CC
CH221J
D584B
DCD
DAN217
ZD582
ZDC
MA8051
ZD581
ZDC
MA8051
ZD580
ZDC
MA8051
U570
DIP18S
BU2092F
L-SW
CS1
CS2
CS3
CS4
CS7
CS6
CS5
C592
CC
F105Z
ZD583
ZDC
MA8062

PARTS NAME

upper : NX704
lower : NX703

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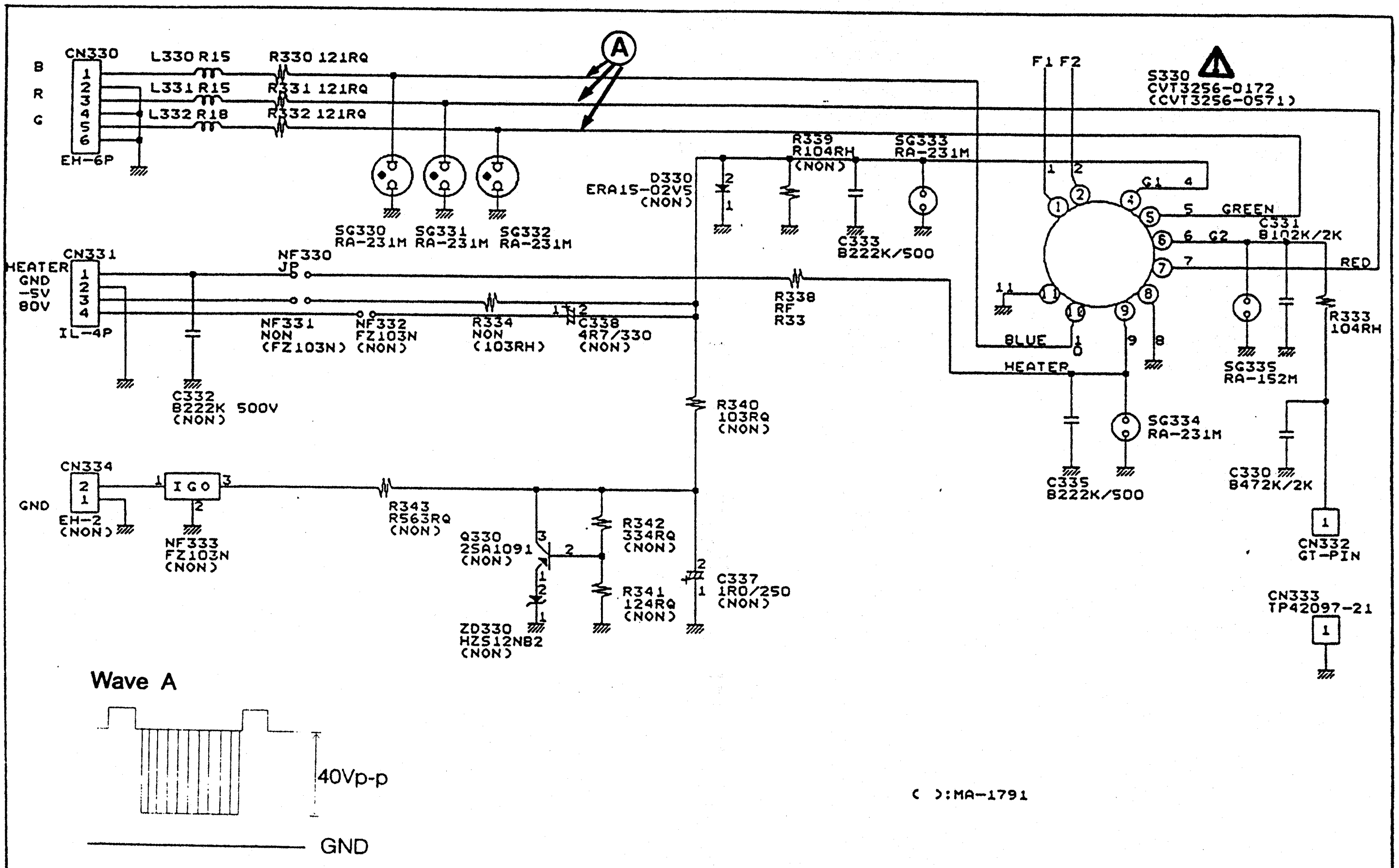
MA-1785/1791 CIRCUIT DIAGRAM for PCB-CS


CN330
B
R
G
1
2
3
4
5
6
EH-6P
L330 R15
L331 R15
L332 R18
R330 121RQ
R331 121RQ
R332 121RQ
A
SG330 RA-231M
SG331 RA-231M
SG332 RA-231M
F1 F2
S330
CVT3256-0172
(CVT3256-0571)
R339 R104RH (NON)
SG333 RA-231M
D330 ERA15-02V5 (NON)
C333 B222K/500
G1
GREEN
G2
C331 B102K/2K
RED
BLUE
HEATER
R333 104RH
SG335 RA-152M
SG334 RA-231M
C335 B222K/500
C330 B472K/2K
CN332 GT-PIN
CN333 TP42097-21
CN331
HEATER
GND
-5V
80V
IL-4P
NF330 JP
NF331 NON (FZ103N)
NF332 FZ103N (NON)
R334 NON (103RH)
C338 4R7/330 (NON)
R338 RF R33
C332 B222K 500V (NON)
R340 103RQ (NON)
CN334
GND
EH-2 (NON)
IGO
NF333 FZ103N (NON)
R343 R563RQ (NON)
Q330 2SA1091 (NON)
R342 334RQ (NON)
R341 124RQ (NON)
C337 1R0/250 (NON)
ZD330 HZS12NB2 (NON)
Wave A
40Vp-p
GND
( ):MA-1791

MA-1785/1791 SCHEMATIC DIAGRAM for PCB-CRT

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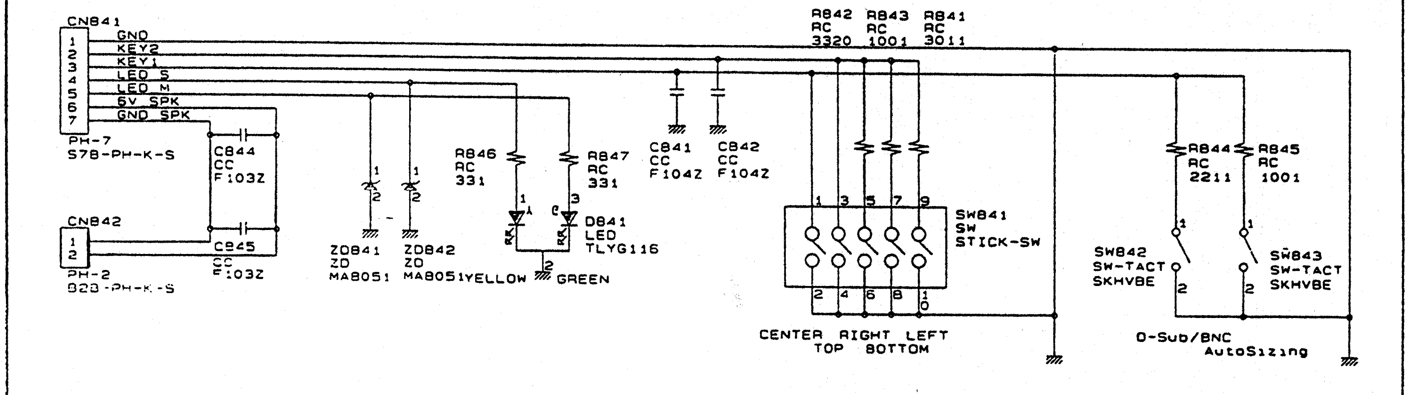
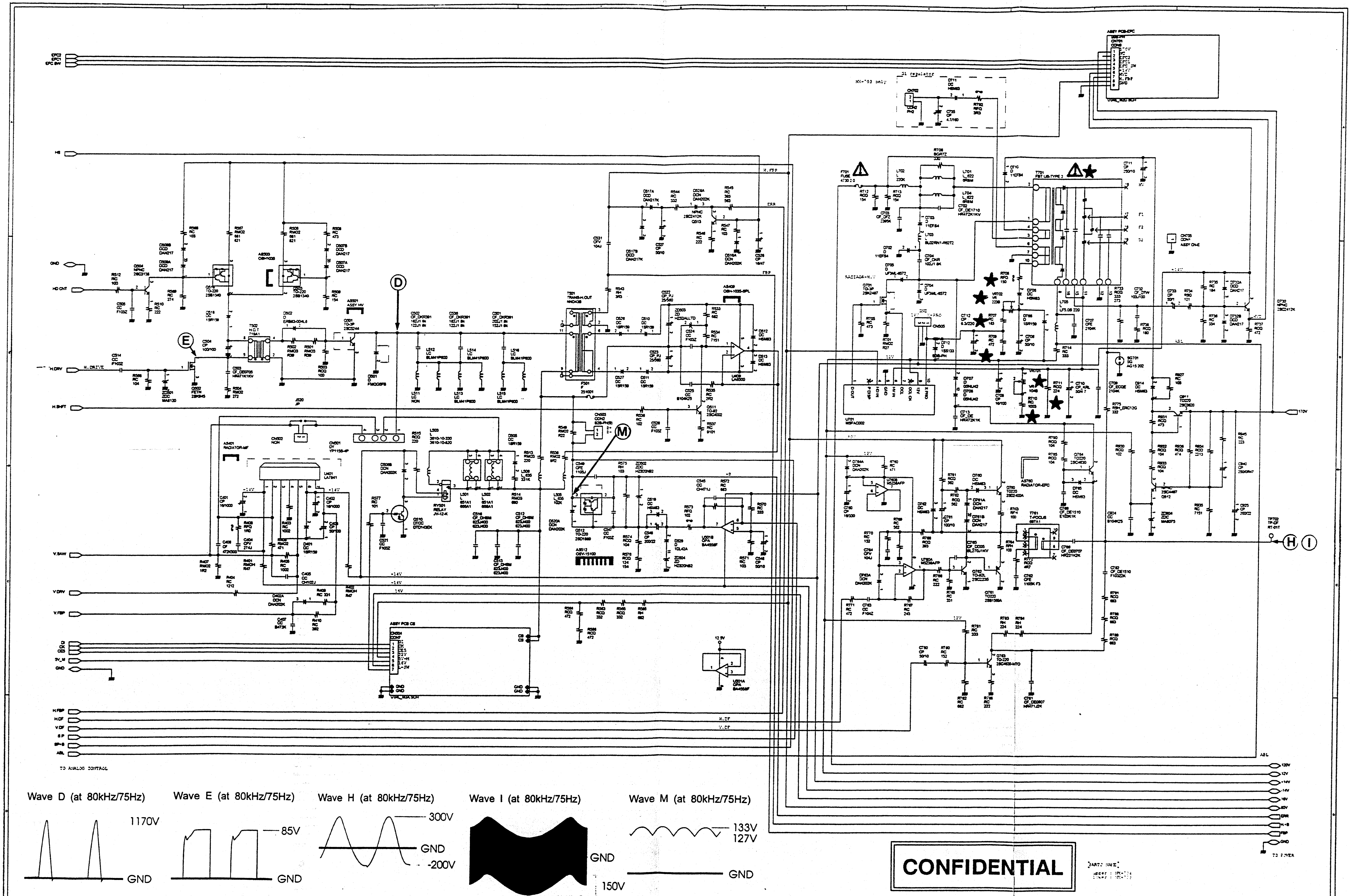

CN841
1 GND
2 KEY2
3 KEY1
4 LED S
5 LED M
6 6V SPK
7 GND SPK
PH-7
S7B-PH-K-S
CN842
PH-2
B2B-PH-K-S
C844 CC F103Z
C845 CC F103Z
ZD841 ZD MA8051
ZD842 ZD MA8051
R846 RC 331
R847 RC 331
D841 LED TLYG116
YELLOW
GREEN
C841 CC F104Z
C842 CC F104Z
R842 RC 3320
R843 RC 1001
R841 RC 3011
SW841 SW STICK-SW
CENTER RIGHT LEFT
TOP BOTTOM
R844 RC 2211
R845 RC 1001
SW842 SW-TACT SKHVBE
SW843 SW-TACT SKHVBE
D-Sub/BNC
AutoSizing

MA-1785/1791 SCHEMATIC DIAGRAM for PCB-SW



HS
GND
HD CNT
H.DRV
H.DRIVE
H SHFT
V.SAW
V.DRV
V.FBP
GND
H.FBP
H.DF
V.DF
S P
SP-B
ABL
TO ANALOG CONTROL
ASSY PCB-EFC
ASSY PCB CS
FBT
170V
120V
12V
+14V
-14V
TO POWER
D
E
M
H
I
Wave D (at 80kHz/75Hz)
1170V
GND
Wave E (at 80kHz/75Hz)
85V
GND
Wave H (at 80kHz/75Hz)
300V
GND
-200V
Wave I (at 80kHz/75Hz)
GND
150V
Wave M (at 80kHz/75Hz)
133V
127V
GND

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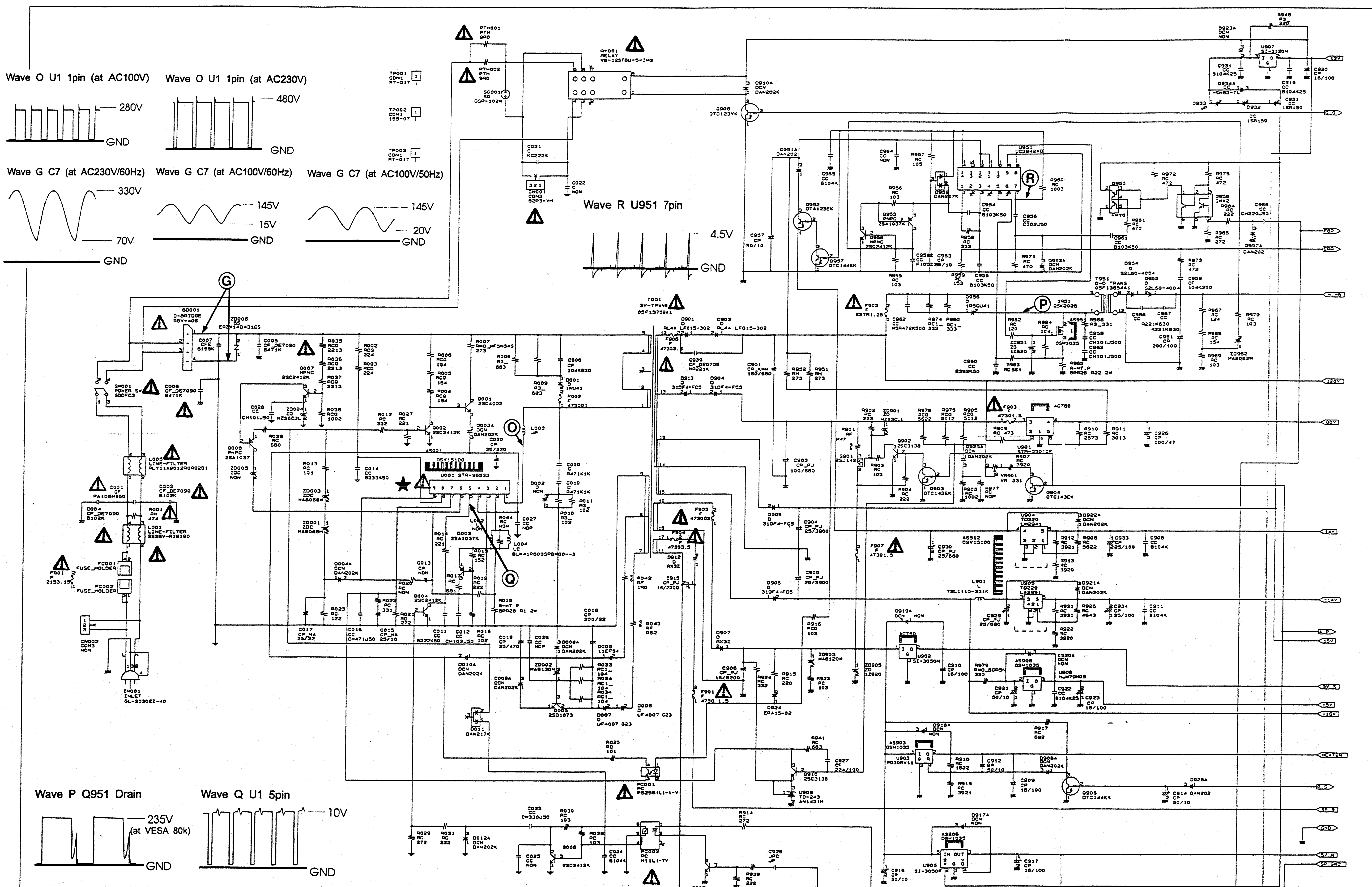
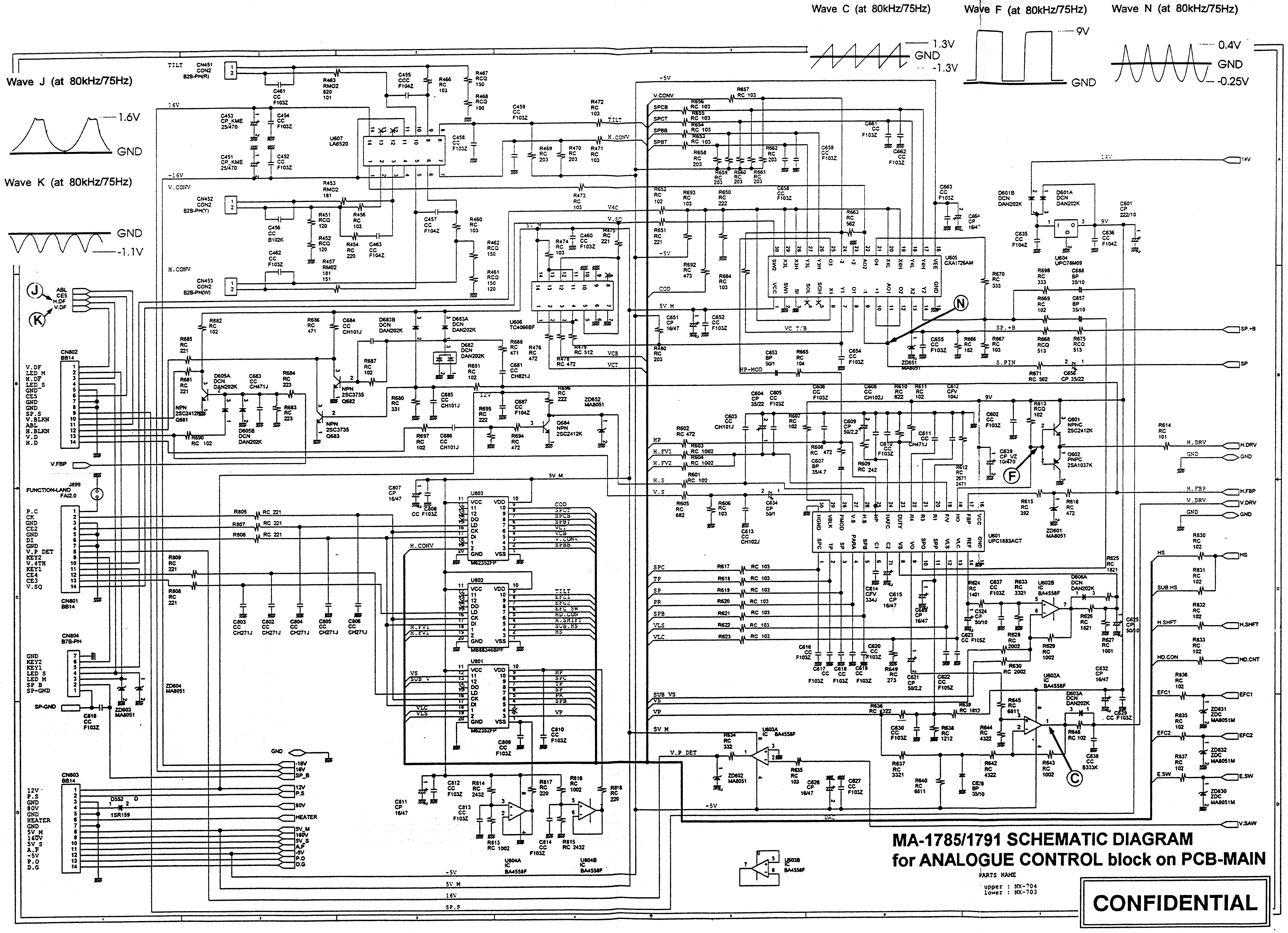
MA-1785/1791 SCHEMATIC DIAGRAM for DEFLECTION block on PCB-MAIN


Wave O U1 1pin (at AC100V)
280V
GND
Wave O U1 1pin (at AC230V)
480V
GND
Wave G C7 (at AC230V/60Hz)
330V
70V
GND
Wave G C7 (at AC100V/60Hz)
145V
15V
GND
Wave G C7 (at AC100V/50Hz)
145V
20V
GND
Wave R U951 7pin
4.5V
GND
Wave P Q951 Drain
235V
(at VESA 80k)
GND
Wave Q U1 5pin
10V
GND
G
O
Q
P
R
RY001 RELAY
T001 SW-TRANS
T951 D-D TRANS
U001 STR-S6533
U951 UC3842AD
BD001 D-BRIDGE
SW001 POWER SW
L005 LINE-FILTER
L001 LINE-FILTER
FC001 FUSE_HOLDER
FC002 FUSE_HOLDER
F001
IN001 INLET
CN002 CON3
PC001 PS2561L1-1-V
PC002 H11L1-TV
12V
120V
80V
14V
-14V
15V
5V S
-5V
-15V
HEATER
GND
5V H
SP GND

MA-1785/1791 SCHEMATIC DIAGRAM for POWER block on PCB-MAIN

CONFIDENTIAL


Wave C (at 80kHz/75Hz)
1.3V
GND
-1.3V
Wave F (at 80kHz/75Hz)
9V
GND
Wave N (at 80kHz/75Hz)
0.4V
GND
-0.25V
Wave J (at 80kHz/75Hz)
1.6V
GND
Wave K (at 80kHz/75Hz)
GND
-1.1V
TILT
CN451 CON2 B2B-PH(R)
CN452 CON2 B2B-PH(Y)
CN453 CON2 B2B-PH(W)
U607 LA6520
U606 TC4066BF
U605 CXA1726AM
U604 UPC78M09
U601 UPC1883ACT
U602B IC BA4558F
U602A IC BA4558F
U603A IC BA4558F
U803 M62352FP
U802 MB88346BPF
U801 M62352FP
U804A IC BA4558F
U804B IC BA4558F
U603B IC BA4558F
CN802 BB14
CN801 BB14
CN804 B7B-PH
CN803 BB14
J899 FUNCTION-LAND FAI2.0
V.DF
LED_M
H.DF
LED_S
GND
CE5
GND
GND
SP.S
V.BLKN
ABL
H.BLKN
V.D
H.D
V.FBP
P.C
CK
GND
CE2
GND
DI
GND
V.P DET
KEY2
V.4TH
KEY1
CE4
CE3
V.SQ
GND
KEY2
KEY1
LED S
LED M
SP B
SP-GND
12V
P.S
GND
80V
GND
HEATER
GND
5V M
160V
5V S
A.F
-5V
P.O
D.G
-16V
16V
SP_B
12V
P.S
80V
HEATER
5V_M
160V
5V_S
A_F
-5V
P.O
D.G
14V
SP.+B
SP
H.DRV
GND
H.FBP
V.DRV
GND
HS
H.SHFT
HD.CNT
EFC1
EFC2
E.SW
V.SAW
V.CONV
H.CONV
SPCB
SPCT
SPBB
SPBT
COD
VC T/B
HP-MOD
HP
H.FV1
H.FV2
H.S
V.S
SPC
TP
SP
PR
SPB
VLS
VLC
SUB VS
VS
VP
5V M
V.P DET
SUB.HS
HD.CON
DAC
-5V
5V M
16V
SP.S
ABL
CE5
H.DF
V.DF
J
K
N
F
C

MA-1785/1791 SCHEMATIC DIAGRAM
for ANALOGUE CONTROL block on PCB-MAIN

PARTS NAME

upper : NX-704
lower : NX-703

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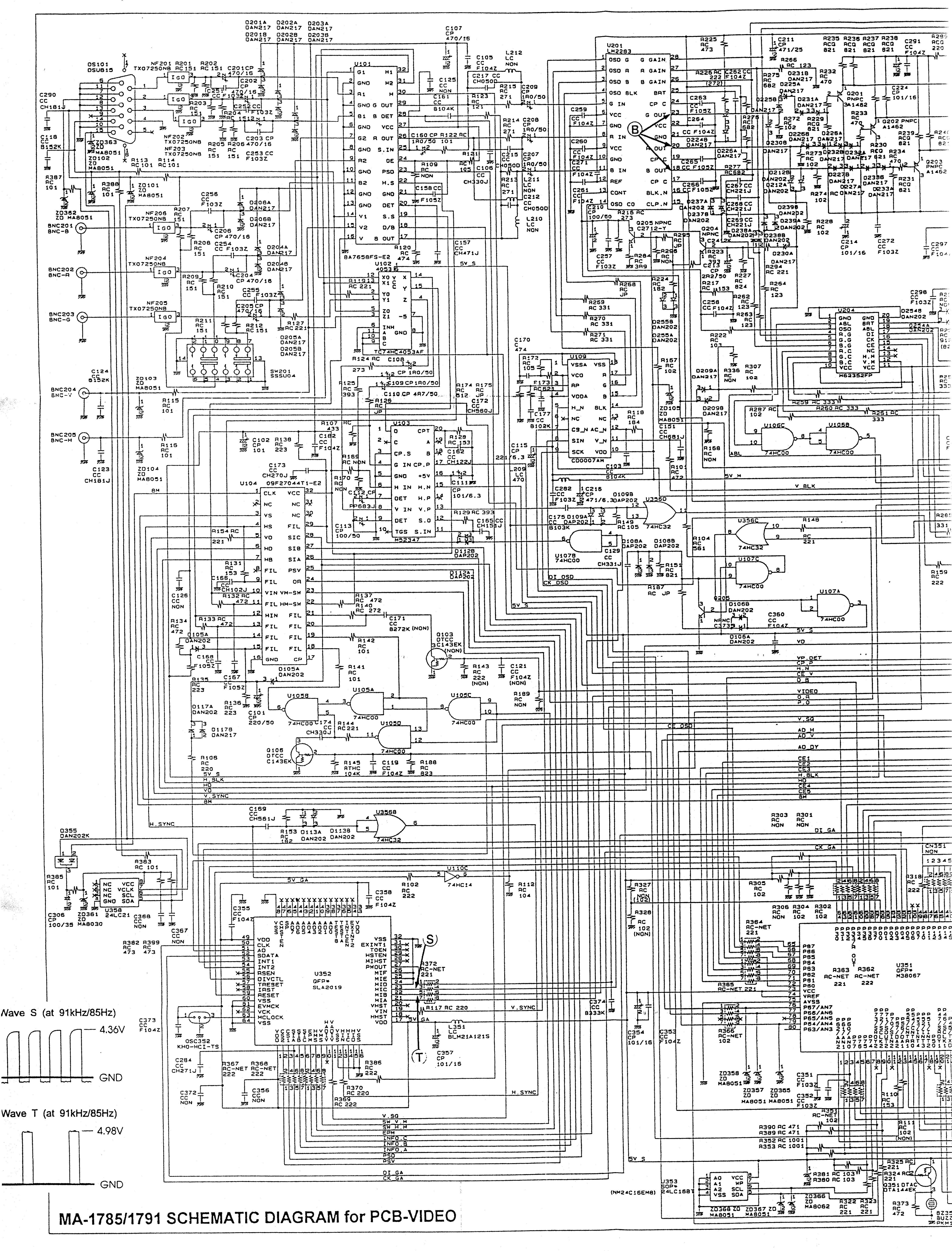
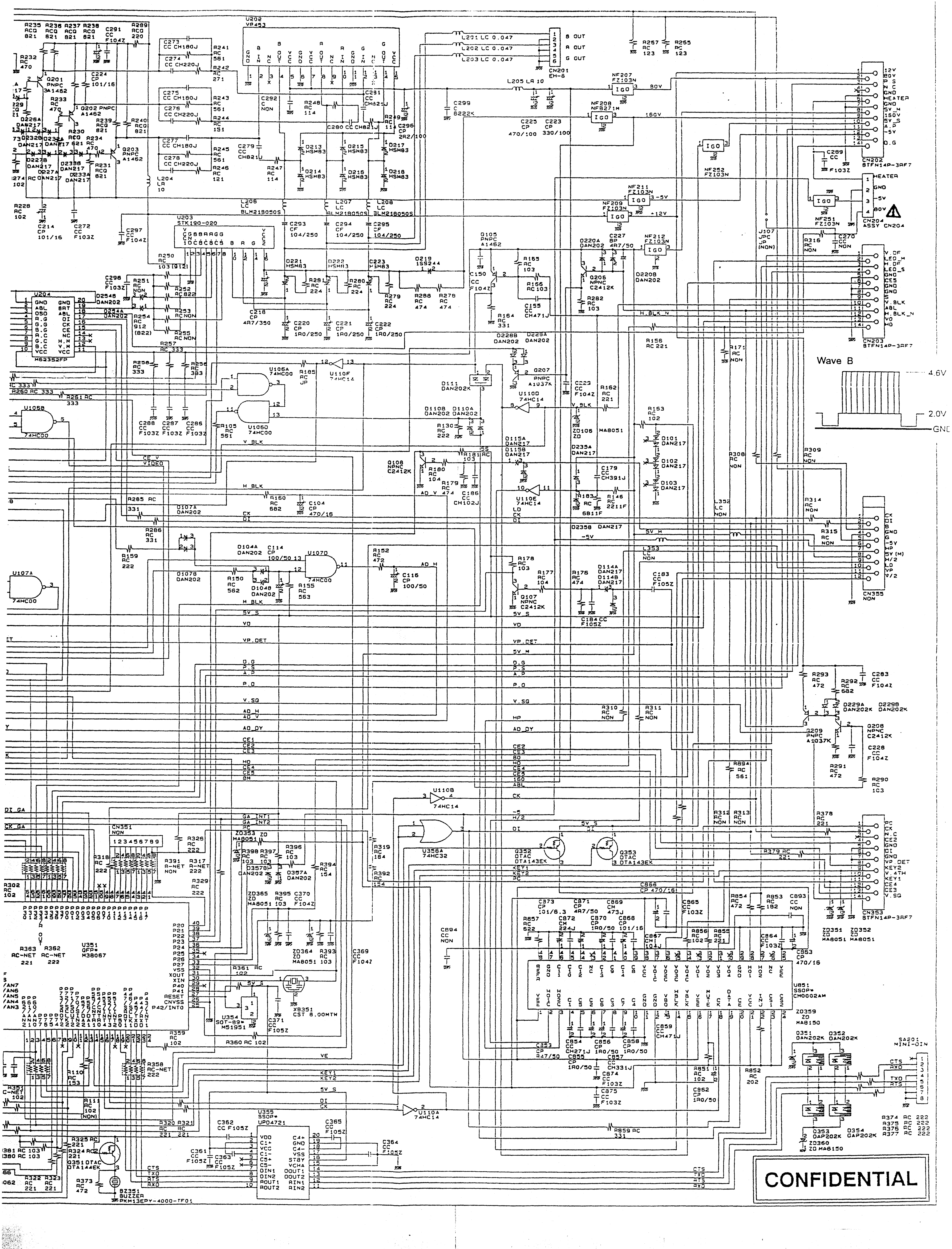
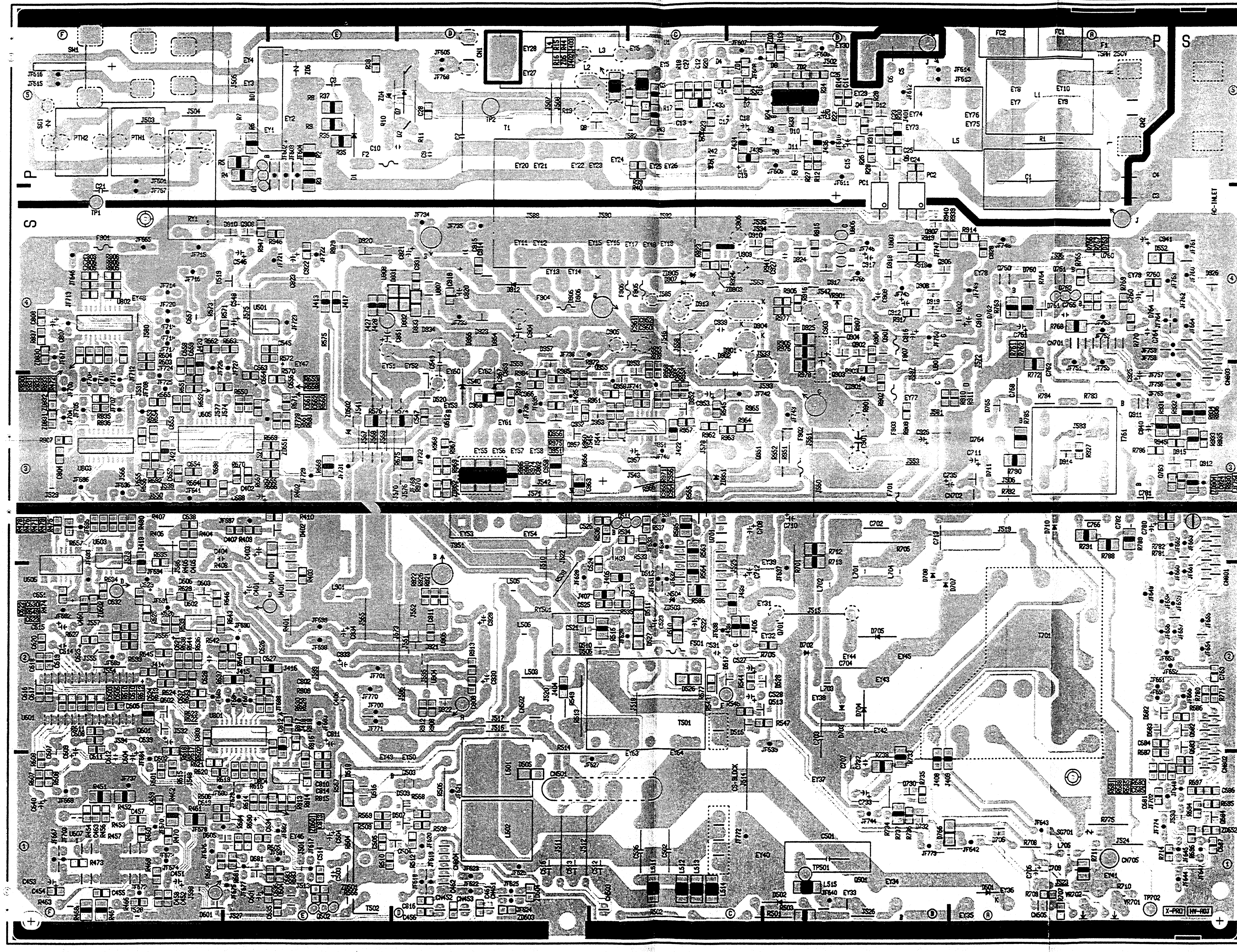

Wave S (at 91kHz/85Hz)
4.36V
GND
Wave T (at 91kHz/85Hz)
4.98V
GND
S
T
B
U101 BA7658FS-E2
U102 4053
TC74HC4053AF
U103 M52347
U104 09F27044T1-E2
U105A 74HC00
U105B 74HC00
U105C 74HC00
U105D 74HC00
U106C 74HC00
U106B 74HC00
U107A 74HC00
U107B 74HC00
U107C 74HC00
U109 CD0007AM
U110C 74HC14
U201 LM2283
U204 M62352FP
U351 M38067
U352 QFP* SLA2019
U353 SOP* 24LC16BT
U356B 74HC32
U356C 74HC32
U356D 74HC32
U358 24LC21
DS101 DSUB15
BNC201 BNC-B
BNC202 BNC-R
BNC203 BNC-G
BNC204 BNC-V
BNC205 BNC-H
SW201 SSSU04
OSC352 KHO-HCI-TS
H.SYNC
V.SYNC
5V_S
5V_GA
V_BLK
VIDEO
DI_OSD
CK_OSD
DI_GA
CK_GA
(NM24C16EMB)

MA-1785/1791 SCHEMATIC DIAGRAM for PCB-VIDEO

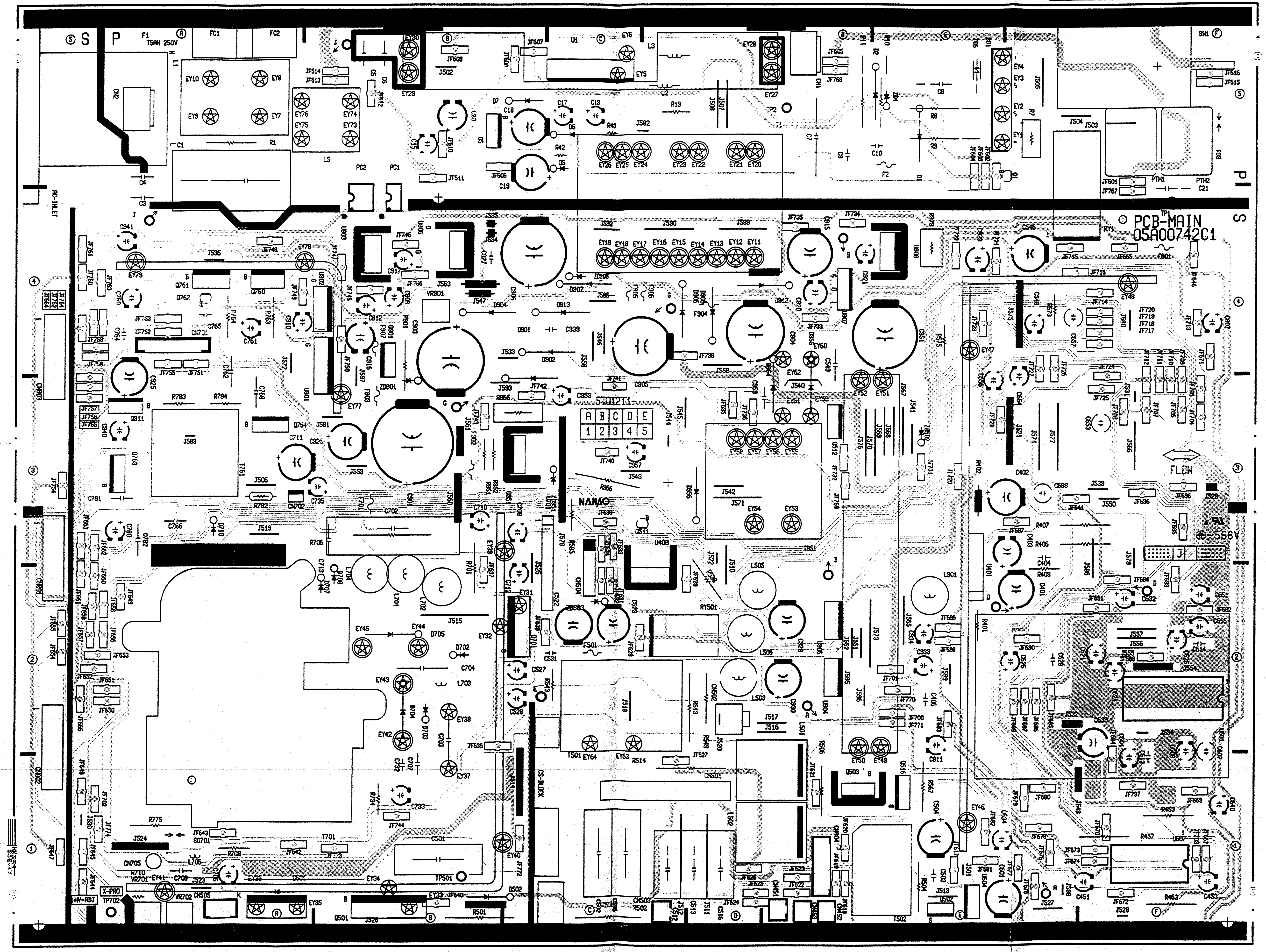

CONFIDENTIAL
Wave B
4.6V
2.0V
GND
U202 VP453
U203 STK190-020
U204 M62352FP
U351 QFP* M38067
U355 SSOP* UP04721
U851 SSOP* CM0002AM
U106A 74HC00
U105B 74HC00
U105C 74HC00
U107A 74HC00
U107C 74HC00
U110F 74HC14
U110D 74HC14
U110E 74HC14
U110B 74HC14
U110A 74HC14
U356A 74HC32
U354 SOT-89* M51951
X8351 CST 8.00MTW
BZ351 BUZZER PKM13EPY-4000-TF01
CN201 EH-6
B OUT
R OUT
G OUT
CN202 BTFN14P-3AF7
CN203 BTFN14P-3AF7
CN204 ASSY CN204
CN353 BTFN14P-3AF7
CN355 NON
CN351 NON
SA201 MINI-DIN
L201 LC 0.047
L202 LC 0.047
L203 LC 0.047
L205 LA 10
NF207 FZ103N
NF208 NFB271M
NF209 FZ103N
NF211 FZ103N
NF212 FZ103N
NF251 FZ103N
NF252 FZ103N
IGO
80V
160V
+12V
-5V
J107 JPC JP (NON)
Q201 PNPC 3A1462
Q202 PNPC A1462
Q203 PNPC A1462
Q105 PNPC A1462
Q206 NPNC C2412K
Q207 PNPC A1037K
Q108 NPNC C2412K
Q107 NPNC C2412K
Q208 NPNC C2412K
Q209 PNPC A1037K
Q351 DTAC DTA144EK
Q352 DTAC DTA143EK
Q353 DTAC DTA143EK
12V
80V
P.S
GND
HEATER
5V_M
150V
5V_S
A.P
-5V
D.G
V_DF
LED_M
H_DF
LED_S
CE5
V.BLK
ABL
H.BLK_N
VO
HO
CK
DI
LD
VP
V/2
H/2
VP.DET
KEY1
KEY2
CE4
CE2
CE3
V.SG
AD_H
AD_DY
CTS
TXD
RTS
RXD

CONFIDENTIAL



MA-1785/1791 PCB-MAIN (05A00742C1) --- Solder side

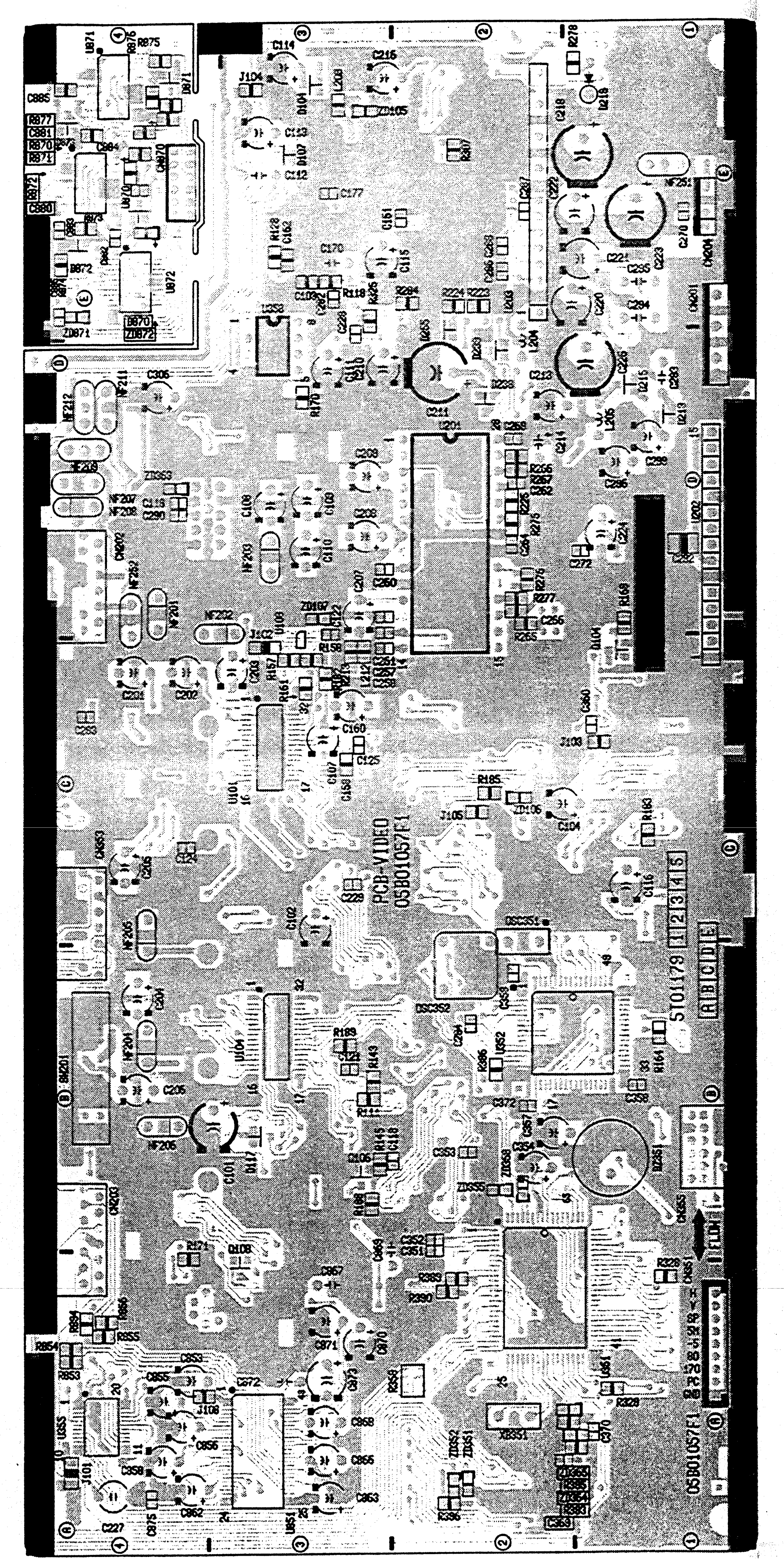
CONFIDENTIAL



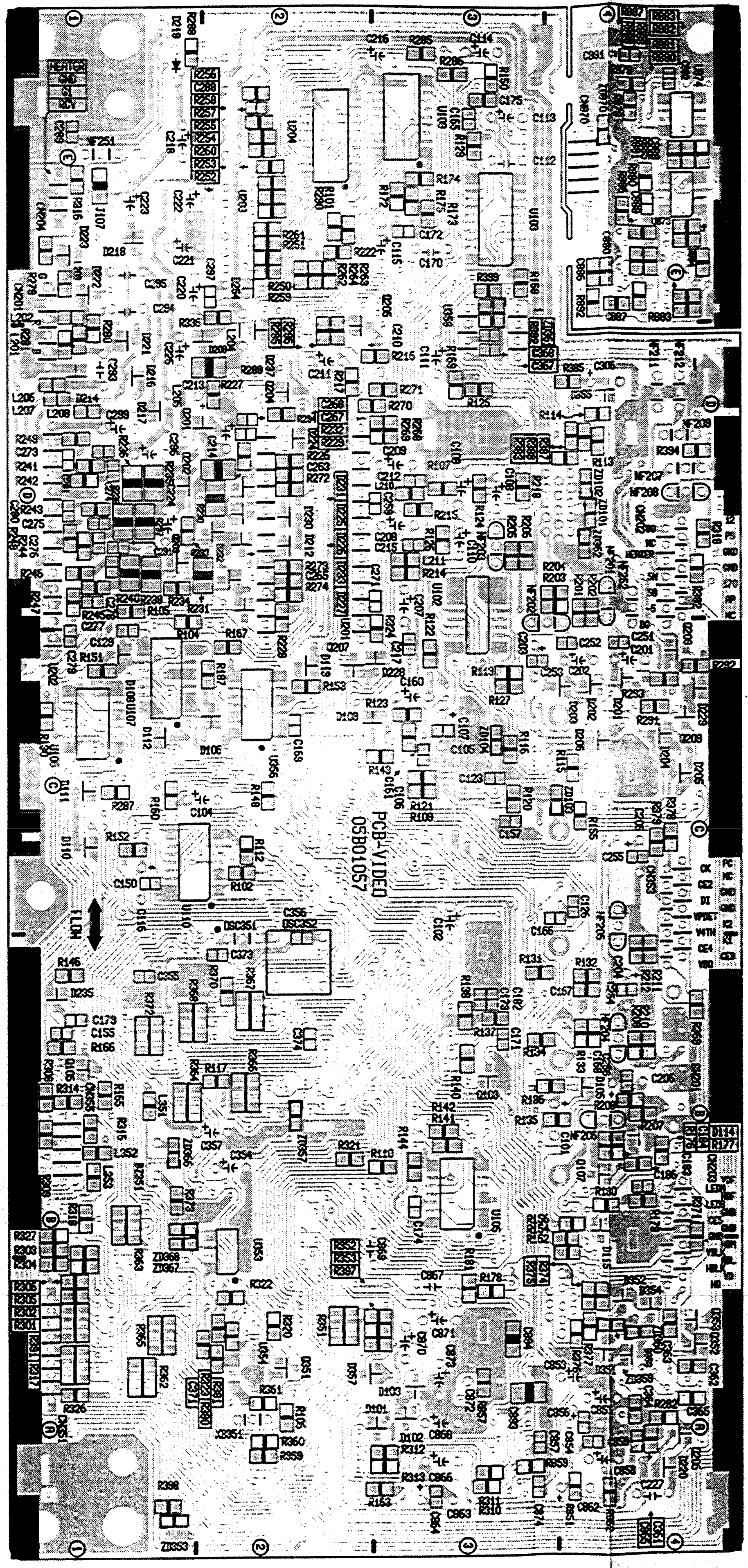
S
P
F1
T5AH 250V
FC1
FC2
AC-INLET
PC2
PC1
PCB-MAIN
05A00742C1
NANAO
STD1211-
A B C D E
1 2 3 4 5
FLOW
568V
CS-BLOCK
X-PRO
HV-ADJ
TP702
TP501
SW1
PTH1
PTH2

MA-1785/1791 PCB-MAIN (05A00742C1) --- Parts side

CONFIDENTIAL



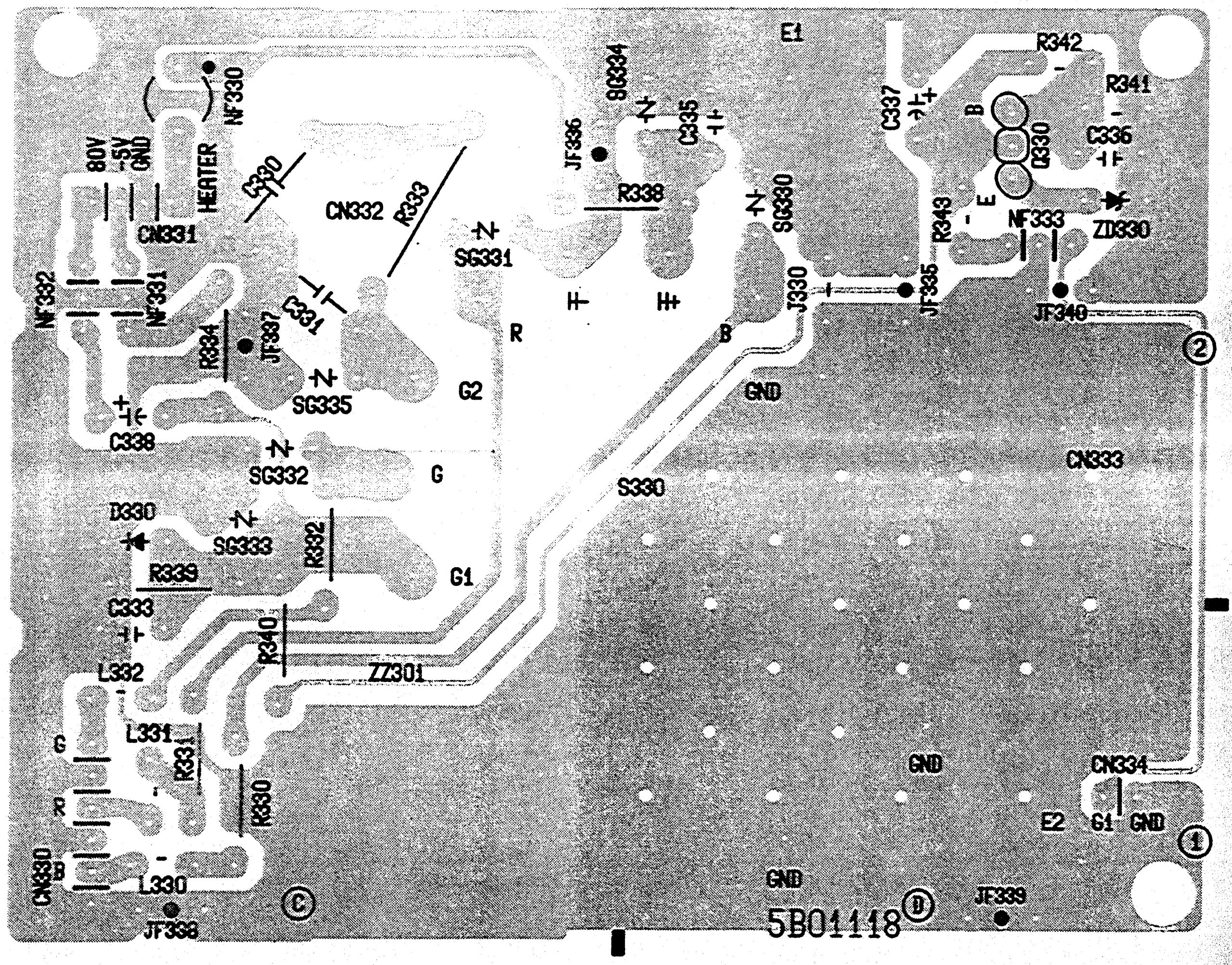
Parts side



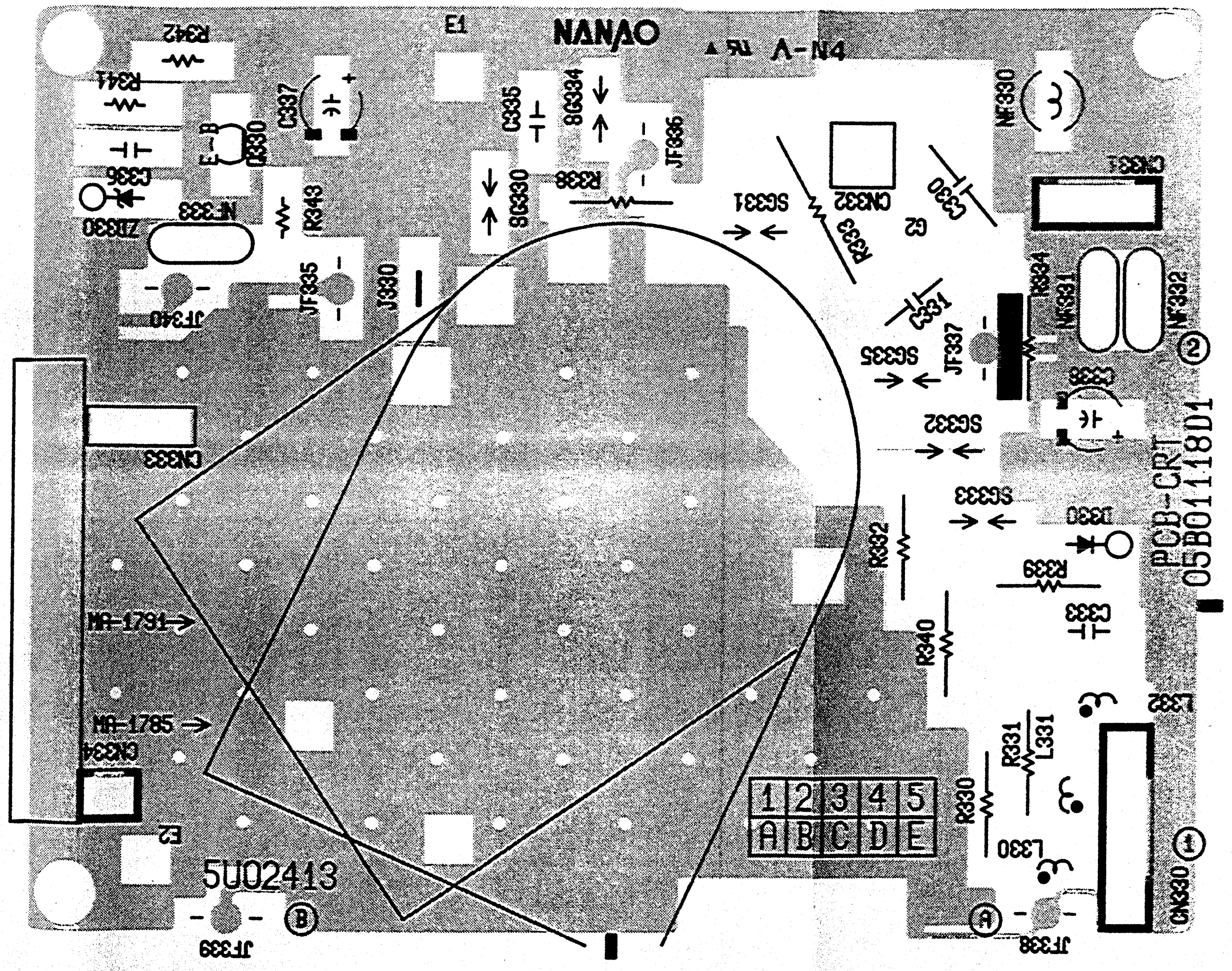
Solder side

MA-1785/1791 PCB-VIDEO (05B01057F1)

CONFIDENTIAL


E1
R342
R341
NF330
80V
-5V
GND
HEATER
C330
CN331
CN332
R333
SG334
C335
JF336
R338
SG330
C337
Q330
B
E
C336
R343
NF333
ZD330
SG331
NF332
NF331
C331
R334
JF337
R
G2
B
J330
JF335
JF340
SG335
C338
GND
SG332
G
S330
CN333
D330
SG333
R332
R339
G1
C333
R340
ZZ301
L332
G
L331
R331
R
R330
CN334
B
GND
E2
G1
CN330
L330
JF338
GND
5B01118
JF339
②
①
Ⓒ
Ⓓ

Parts side


R342
E1
NANAO
V-N4
R341
C337
Q330
E
B
C335
SG334
JF336
NF330
CN331
C336
ZD330
NF333
R343
R338
SG330
SG331
CN332
R333
G2
C330
JF340
JF335
J330
C331
R334
NF331
NF332
JF337
SG335
C338
CN333
SG332
SG333
D330
PCB-CRT
05B01118D1
R332
R339
MA-1791
C333
R340
L332
MA-1785
R331
L331
CN334
1 2 3 4 5
A B C D E
R330
L330
E2
5U02413
CN330
JF339
JF338
Ⓑ
Ⓐ
②
①

Solder side

MA-1785/1791 PCB-CRT (05B01118D1)

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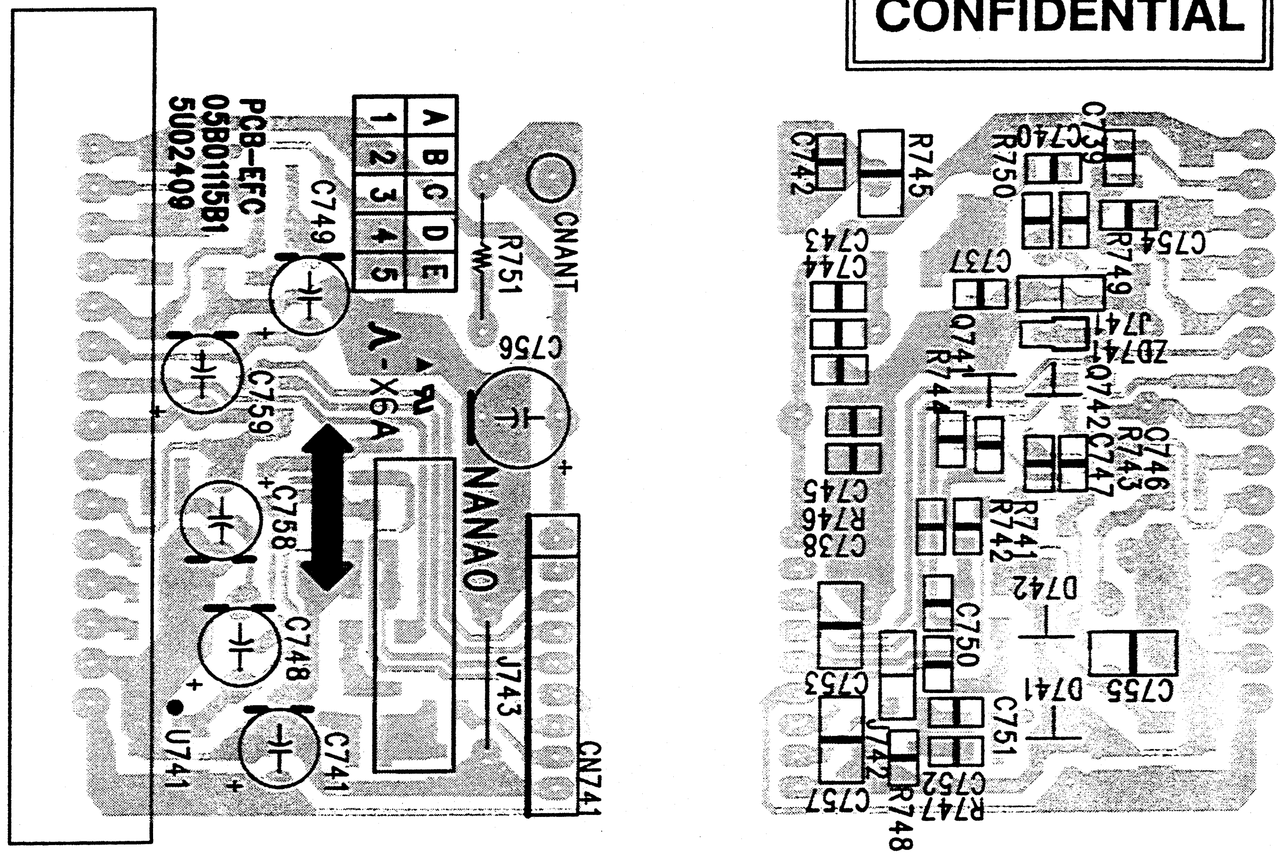
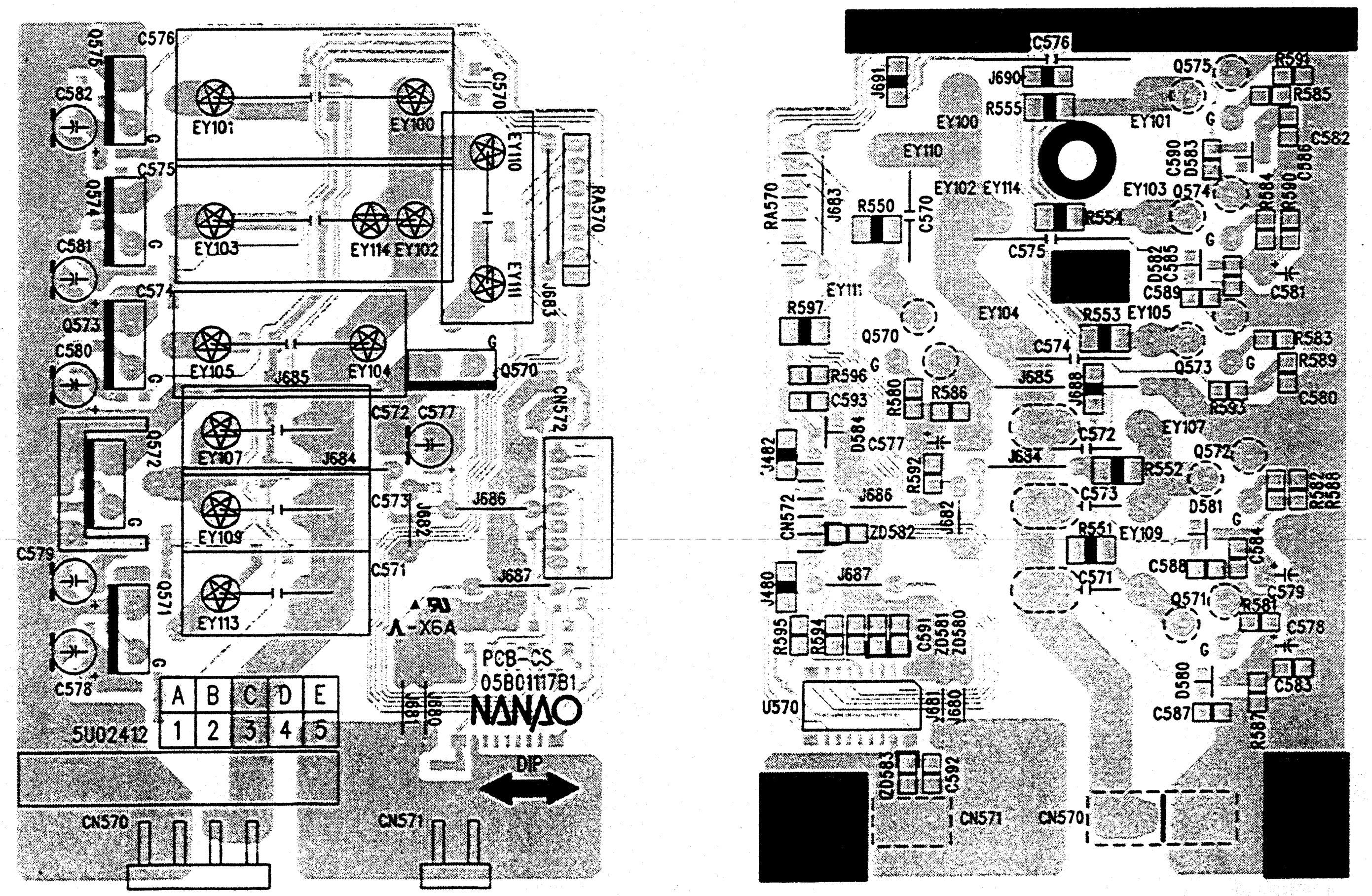

PCB-EFC
05B01115B1
5U02409
CNANT
R751
C756
X6A
NANAO
C749
C759
C758
C748
C741
U741
U743
CN741
A B C D E
1 2 3 4 5
C742
R745
C740
C739
R750
C754
R749
J741
ZD741
C743
C744
C737
Q741
R744
Q742
C746
R743
C747
C745
R746
C738
R741
R742
D742
C750
C753
C755
D741
C751
C752
C757
J742
R747
R748

Parts side

Solder side

MA-1785/1791 PCB-EFC (05B01115B1)

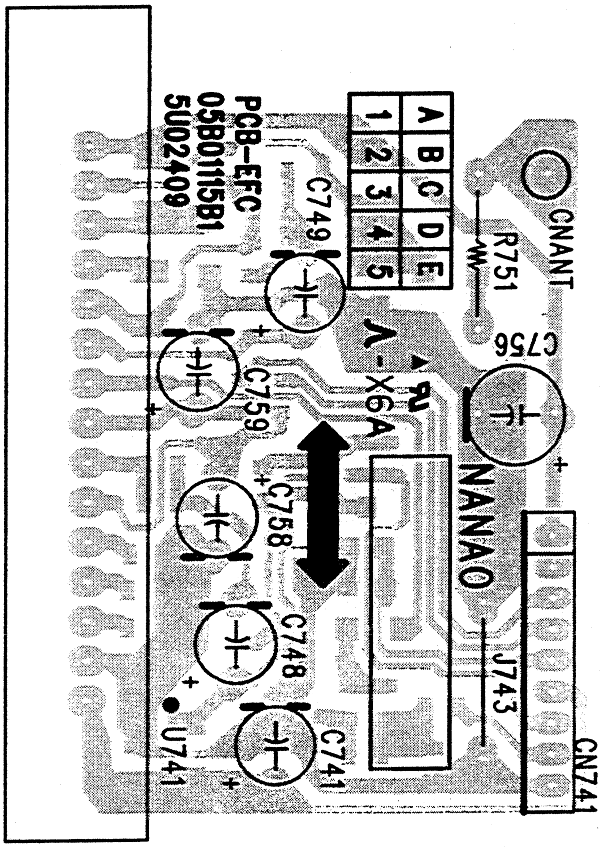

C576
C582
C575
C581
C574
Q573
C580
Q572
C579
Q571
C578
Q574
Q575
EY101
EY100
C570
EY110
RA570
EY103
EY114
EY102
EY111
J683
EY105
EY104
Q570
J685
C572
C577
CN572
EY107
J684
C573
J682
J686
EY109
C571
J687
EY113
X6A
PCB-CS
05B01117B1
NANAO
J681
J680
A B C D E
1 2 3 4 5
5U02412
DIP
CN570
CN571
J690
R555
R550
R554
R553
R597
R596
C593
R586
D584
R592
ZD582
U570
R595
R594
C591
ZD581
ZD580
C592
ZD583
R585
R584
R590
D582
D583
C589
R583
R589
R593
R552
D581
R551
C588
R581
D580
C587
C583
R587
R588

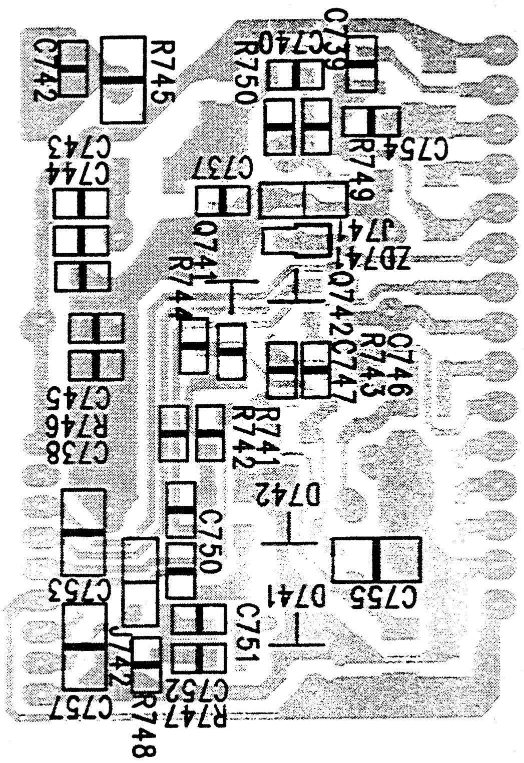
Parts side

Solder side

MA-1785/1791 PCB-CS (05B01117B1)

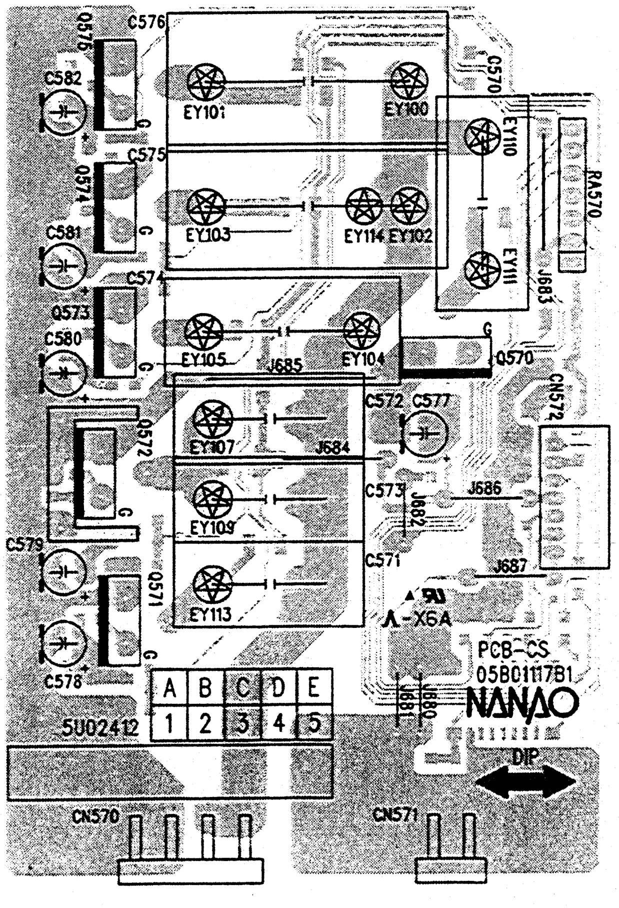
CONFIDENTIAL

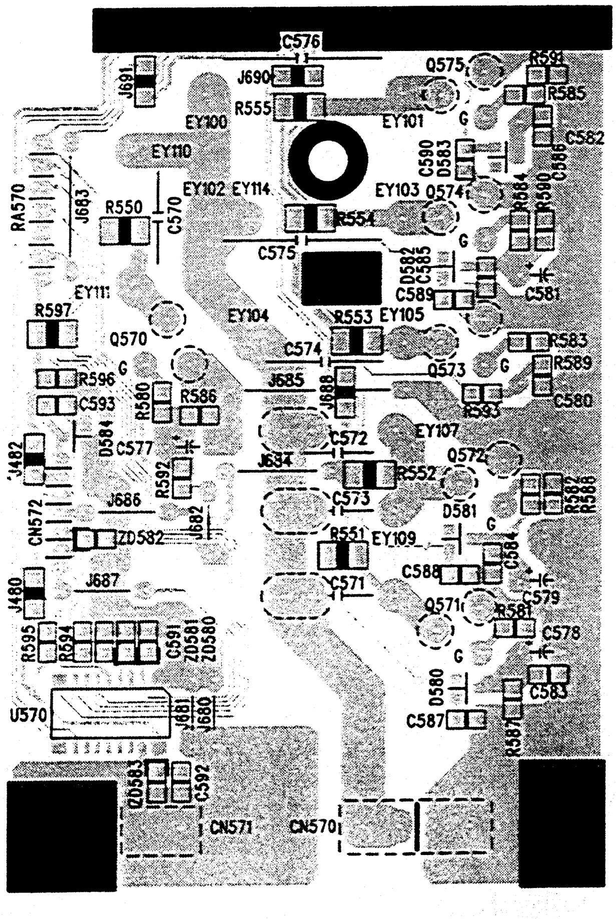

PCB-EFC
05B01115B1
5U02409
CNANT
R751
C749
C759
C756
C758
C748
C741
U741
J743
CN741
NANAO
Λ-X6A
A B C D E
1 2 3 4 5


C742
R745
R750
C740
C739
C754
R749
C743
C744
C737
J741
ZD741
Q741
R744
Q742
Q746
R743
C747
C745
R746
C738
R741
R742
D742
C750
C753
C755
D741
C751
C752
J742
R747
R748
C757

Parts side **Solder side**

MA-1785/1791 PCB-EFC (05B01115B1)

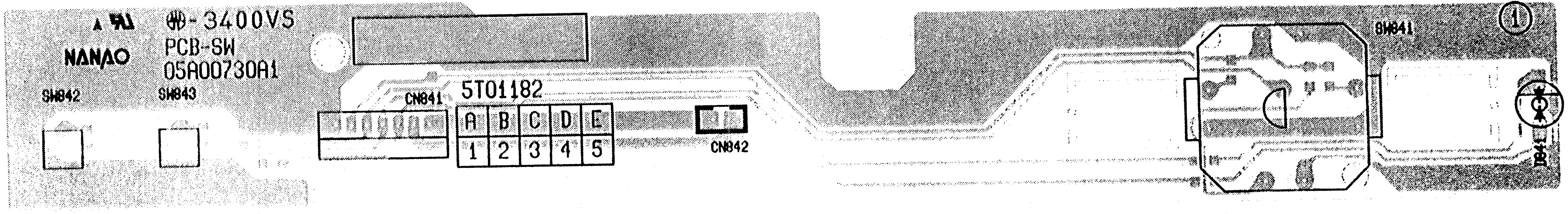

Q575
C576
C582
C575
Q574
C581
C574
Q573
C580
Q572
C579
Q571
C578
EY101
EY100
EY110
EY111
EY103
EY114
EY102
EY105
EY104
J685
Q570
EY107
J684
EY109
EY113
C572
C577
C573
C571
J686
J687
J682
CN572
RA570
J683
C570
Λ-X6A
PCB-CS
05B01117B1
NANAO
A B C D E
1 2 3 4 5
5U02412
J681
J680
DIP
CN570
CN571


C576
J691
J690
R555
EY100
Q575
R591
R585
EY101
C582
EY110
RA570
J683
R550
C570
EY102
EY114
R554
EY103
Q574
C575
R597
EY111
Q570
EY104
R553
EY105
C574
R596
C593
R580
R586
J685
Q573
R593
C580
J482
D584
C577
R592
J684
C572
R552
EY107
Q572
C573
D581
CN572
J686
J682
ZD582
R551
EY109
J480
J687
C571
C588
Q571
R581
C579
C578
R595
R594
C591
ZD581
ZD580
D580
C583
C587
U570
J681
J680
ZD583
C592
CN571
CN570

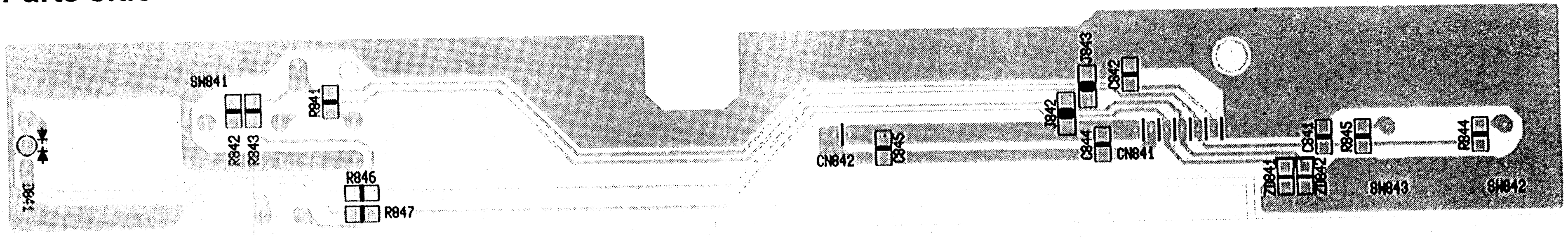
Parts side **Solder side**

MA-1785/1791 PCB-CS (05B01117B1)

CONFIDENTIAL


-3400VS
NANAO
PCB-SW
05A00730A1
SW842
SW843
CN841
5T01182
A B C D E
1 2 3 4 5
CN842
SW841
①
D841

Parts side


SW841
R842
R843
R841
R846
R847
D841
CN842
C845
J842
J843
C842
C844
CN841
C841
R845
R844
ZD841
ZD842
SW843
SW842

Solder side

MA-1790 PCB-SW (05A00730A1)